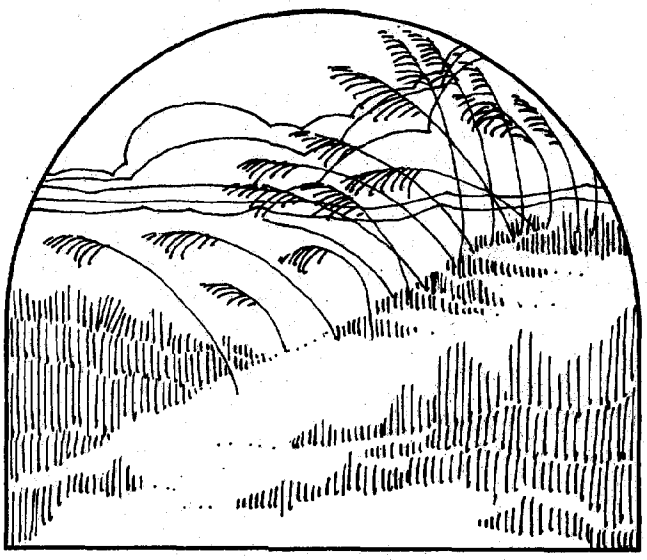
WILLIAM B. FARRIS



The Currituck Plan

Outer Banks: Development Situation

The Currituck Plan

Outer Banks: Development Situation

Prepared for the Three Man Executive
Committee for Programing and Funding.

H. D. Newbern Jr., Chairman,
Currituck County Commissioners

Jerry W. Hardesty, Chairman,
Currituck County Planning Commission

Dr. Arthur Cooper, Assistant Secretary for Resource Management
North Carolina Department of Natural and Economic Resources.

SEPT. 26, 1972

For additional information, write:
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Currituck, North Carolina 27929

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THE CURRITUCK PLAN--OUTER BANKS: DEVELOPMENT SITUATION

INTRODUCTION

The purpose of the booklet is to communicate with the many people that are or should be involved in the Currituck County both immediately and in the future.

The County is in the process of establishing its long range objectives but due to the critical nature of the Outer Banks and the proposed development, several major immediate decisions need to be made by the Currituck Board of County Commissioners as representives of the citizens of the county and the County's future.

The County needs to know how much development and what type of development is best suited for the Outer Banks both in terms of critical natural environment and economics of providing public services to the area in the future. Even though the County has approved a substantial number of lots for the Outer Banks and a large number of the lots have been sold, mostly on contract, they need to know which areas should be developed and how to manage this development.

Now of particular concern is the requirement for managing the water and sewer needs for the Outer Banks development and in contrast to most other areas of the State the use of septic tanks may not be limited by the lack of purculation but by too much purculation which with accessive development could contaminate the ground water supply and the sound. Along with the utility needs for development proper access to the area is needed. The idea of the public participating in providing the access, seem logical only if the public also be provided something in return. It is most important to physically locate the best access routes to the various areas of the county in order to allow man and nature to co-exist.

There are many other concerns relative to the planning and management of the county which could have a serious impact on Currituck and these should not be over looked as attention is forcused on the physical planning.

We hope that the people who receive this booklet will give us their comments weather the comments are offical or private. It is especially important that citizens of Currituck County and officials of the State and Federal Governments give us their comments.

Due to our time schedule we would like to receive comments by 17 October 1972 in order to have maximum in put for the next phase which will define more clearly the "Outer Banks - Development Potentions". More detailed information could be furnished later and used to guide in subsequent phases of "THE CURRITUCK PLAN".

PURPOSE AND OBJECTIVES FOR THE CURRITUCK PLAN

PURPOSE: To define the proper development intensity which will maintain the natural attractiveness of the County while enhancing its economic situation.

OBJECTIVES: To establish the County as the most attractive area on the east coast in terms of the natural beauty of the fresh water Sound bounded by an Outer Banks strand and an agricultural mainland.

To develop the mainland as an organized truck crop agricultural area, taking advantage of the soil, climate, and market access.

To develop the recreational potential of the Sound and Outer Banks for swimming, boating, sailing, fishing, hunting, and the creation of a year-round tourist industry.

To preserve the historic areas of interest and to develop their educational and recreational value.

To protect and maintain wildlife refuge areas and to develop programs for stabilizing the natural features of the Outer Banks and Sound.

To prevent the misuse of the County's scarce and valuable natural resources by adequate planning.

The preparation of plans, the adoption of zoning controls and development standards which will discourage land speculation and encourage proper development.

To establish adequate fiscal policies in the County in order to support an efficient land management system and the provision of adequate public services.

To improve access between the different geographic areas of the County to enhance unity and to provide public access to recreational areas.

To coordinate development with surrounding counties and maintain communication with State and Federal agencies to ensure the best development programs for the County.

PROGRAM SUMMARY

Phasing of Planning Study

Phase I	(August - September 1972) Outer Banks Development Situation
Phase II	(October 1972) Outer Banks Development Potential
Phase III	(November - December 1972) County Growth Potential
Phase IV	(January 1973) Enviromental Resource Management

DESCRIPTION OF PHASES

Phase I: Outer Banks Development Situation
(August to September 1972)

The purpose of the phase is to examine the various constraints and pressures which are exerted on the county and to produce some principles for land development and access. These principles have been expressed in terms of schematic alternatives at five different scales of analysis:

MID ATLANTIC REGION
TIDEWATER REGION
CURRITUCK
OUTER BANKS
PROTOTYPICAL SITES

Insofar as the entire project is concerned Phase I serves to identify the problem, its parameters and variables, and to establish goals for the growth and development of the coastal county. The first month of the planning study--August 1972--has been devoted to research in support of the definition of the problem and to the establishment of goals. The second month of Phase I has been devoted to the development of planning principles and alternatives for access and land development for the Outer Banks, as well as to the definition of design and planning objectives.

This report -- Outer Banks Development Situation -- is therefore the result of two months research by the principle consultants on the developmental issues of the Outer Banks.

Phase II: Outer Banks Development Potential
(October 1972)

An extension of Phase I, the Outer Banks Development Potential emphases definitive solutions to the structural use of land on the Outer Banks. It is conceived as a more detailed version of the recommendations of Phase I with specific analyses of tracts of land currently developed, currently undeveloped but in either small or large lot platting, or in wilderness form. The principle consultants will make use of the recommendations of ecological, economic and engineering consultants with respect to natural ecological capacities, economic opportunities and costs, and engineering capacities and costs respectively.

Phase III: County Growth Potential
(November - December 1972)

Pressures building up on the Outer Banks for vacation and permanent homes development have determined analytic priorities in the Currituck Plan. Thus, the problems of access and land development for this area have a greater degree of urgency than those of the associated problems at the county level. Nevertheless, as the coastal lands are filled in the county's economic and social system must respond to the demand for water, sewer, fire and police

protection, education, eommunity, administrative and other forms of services. This phase will explore several alternative growth models and their impact on the county as a whole. The objective is to produce a county plan based on ecological and economic criteria which minimize, as far as possible, both the economic and social costs to the citizens of the county and the disruption of the natural environment, while simultaneously allowing residential development to occur.

Phase IV: ENVIRONMENTAL RESOURCE MANAGEMENT
(January 1973)

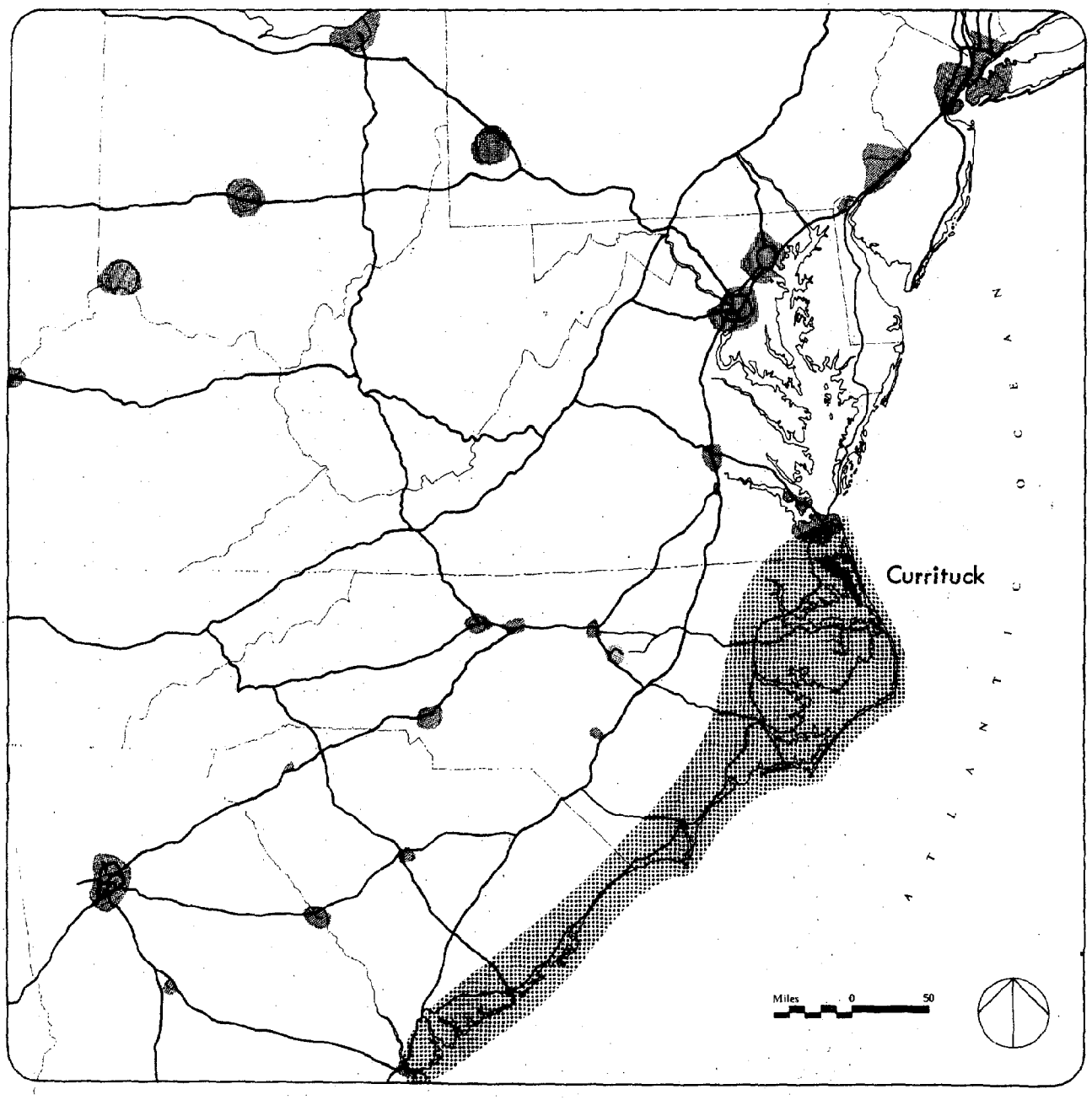
The work of the principle consultants and their ecological, economic and engineering consultants is focused in this phase on the preparation of a management system for the development of the county's lands. The principle elements of this management will be as follows:

1. Comprehensive Planning
2. Land Use Control System
3. Subdivision Management
4. Commerical and Industrial Development
5. Community Services
6. Fiscal Management
7. Natural Resource Management
8. Wildlife and Fisheries Management

The objective is to design a management system for the county which will guide its developmental decisions relative to the categories listed above.

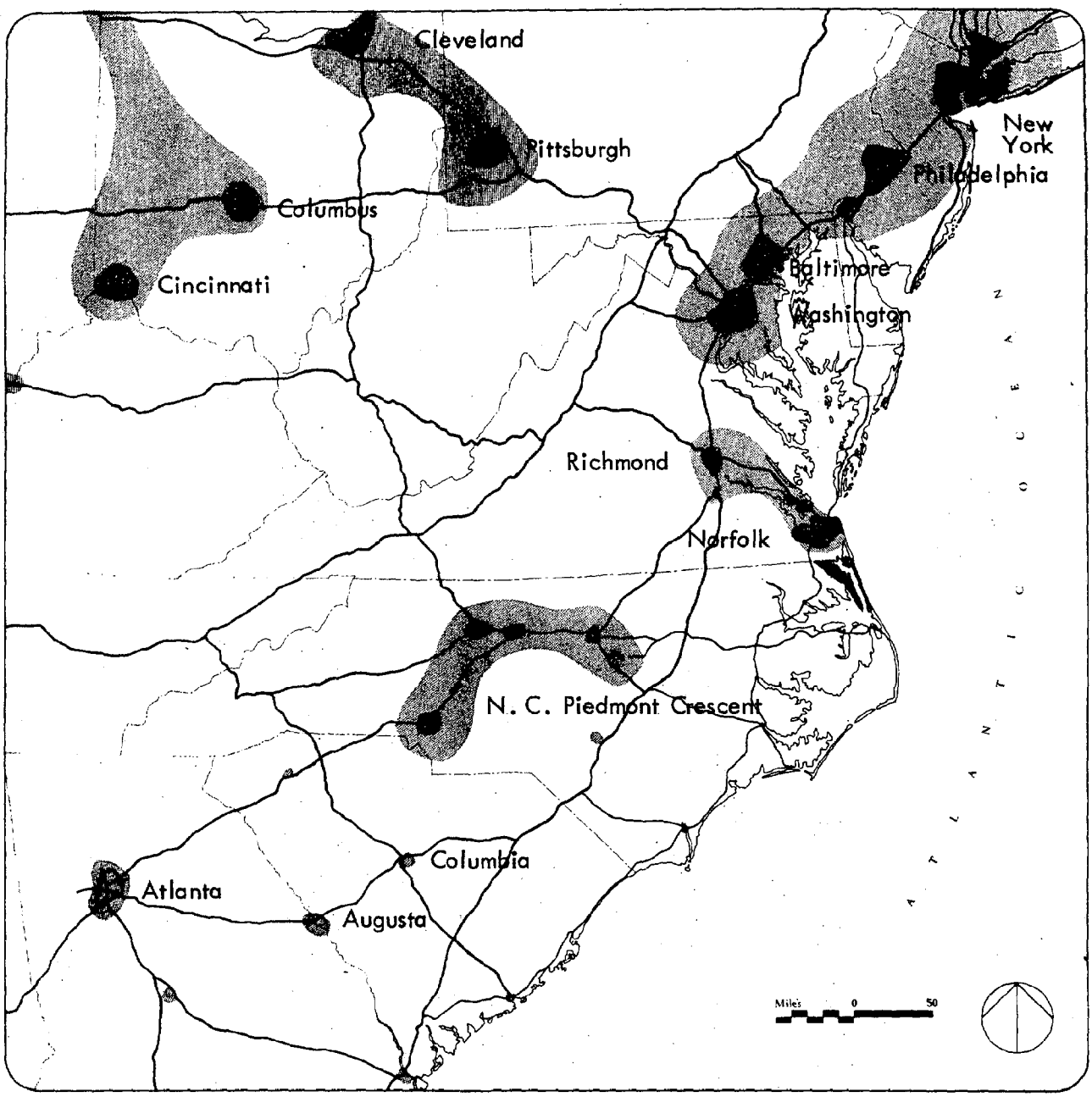
The following illustrations show the impact of population distribution within the region around Currituck County. These studies indicate that the largest number of users of the Coastal Recreational Area come from the northeastern metropolitan areas and states, having a total population of some 70 million people, with a projected population over 100 million within 25 years. Three Interstate highway corridors (I-95, I-85, and I-81) serve the north-south movement demand to the west of the Coastal Recreational Area. There are no adequate east-west connectors to the coast; furthermore, there is no clear north-south through route within the Coastal Recreational Area.

THE MID ATLANTIC REGION



SOUTHEASTERN COASTAL RECREATION AREA

Over 700 miles of relatively undeveloped shoreline, much of which is privately owned and thus accessible only to a small segment of the population.

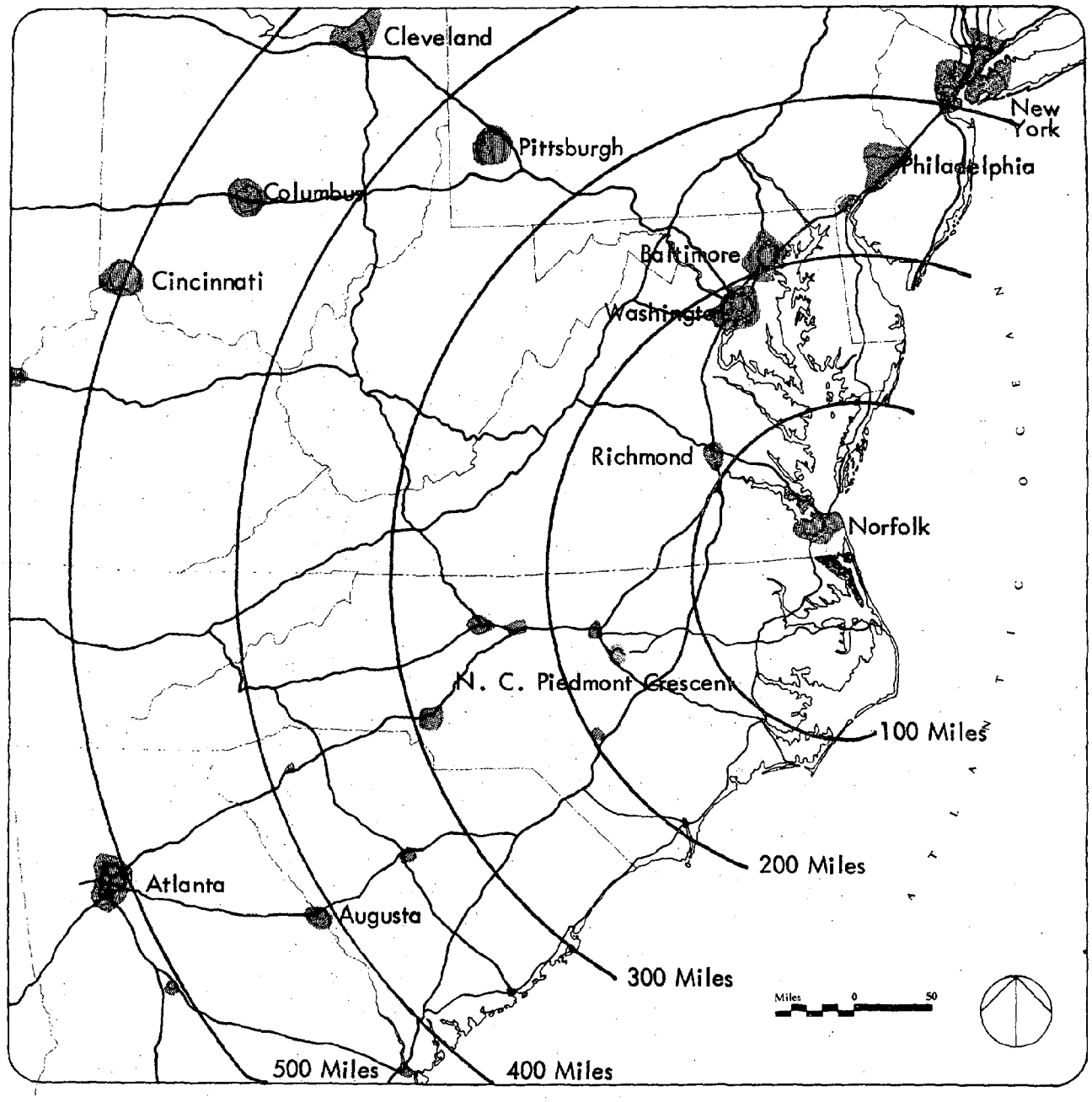


POPULATION AND MEGALOPOLITAN AREAS

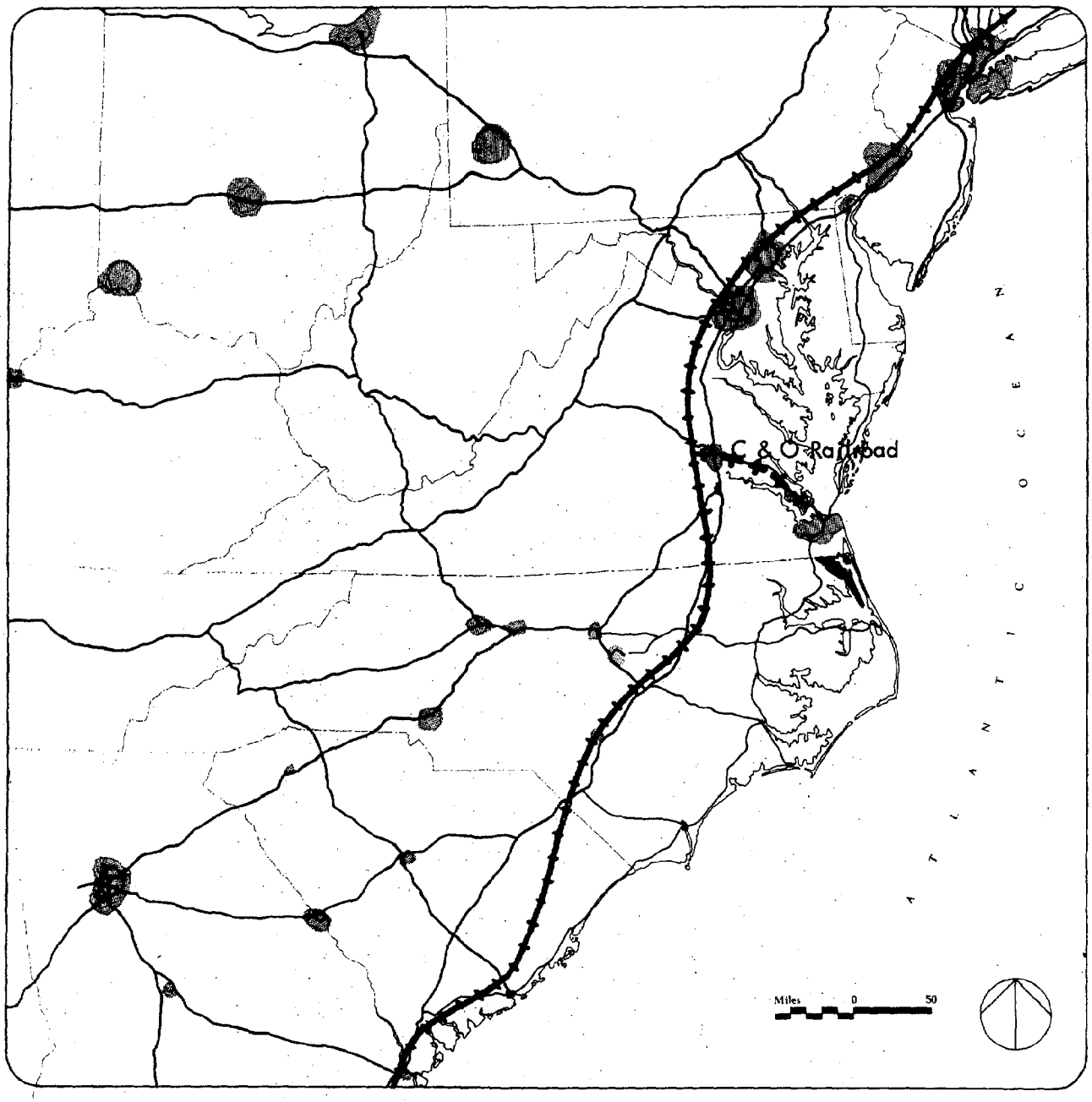
Northern States Area:	
Virginia	4.5 Million
Maryland	4.0 Million
Delaware	.5 Million
New York	18.0 Million
Pennsylvania	12.0 Million
New Jersey	11.0 Million
West Virginia	2.0 Million
Ohio	7.0 Million

Southern States Area:	
North Carolina	5.0 Million
South Carolina	2.5 Million
Georgia	4.5 Million

Total Population Influence (Northern and Southern)
71 Million people (1972 population)
Projected Population in Thirty Years - 125 million



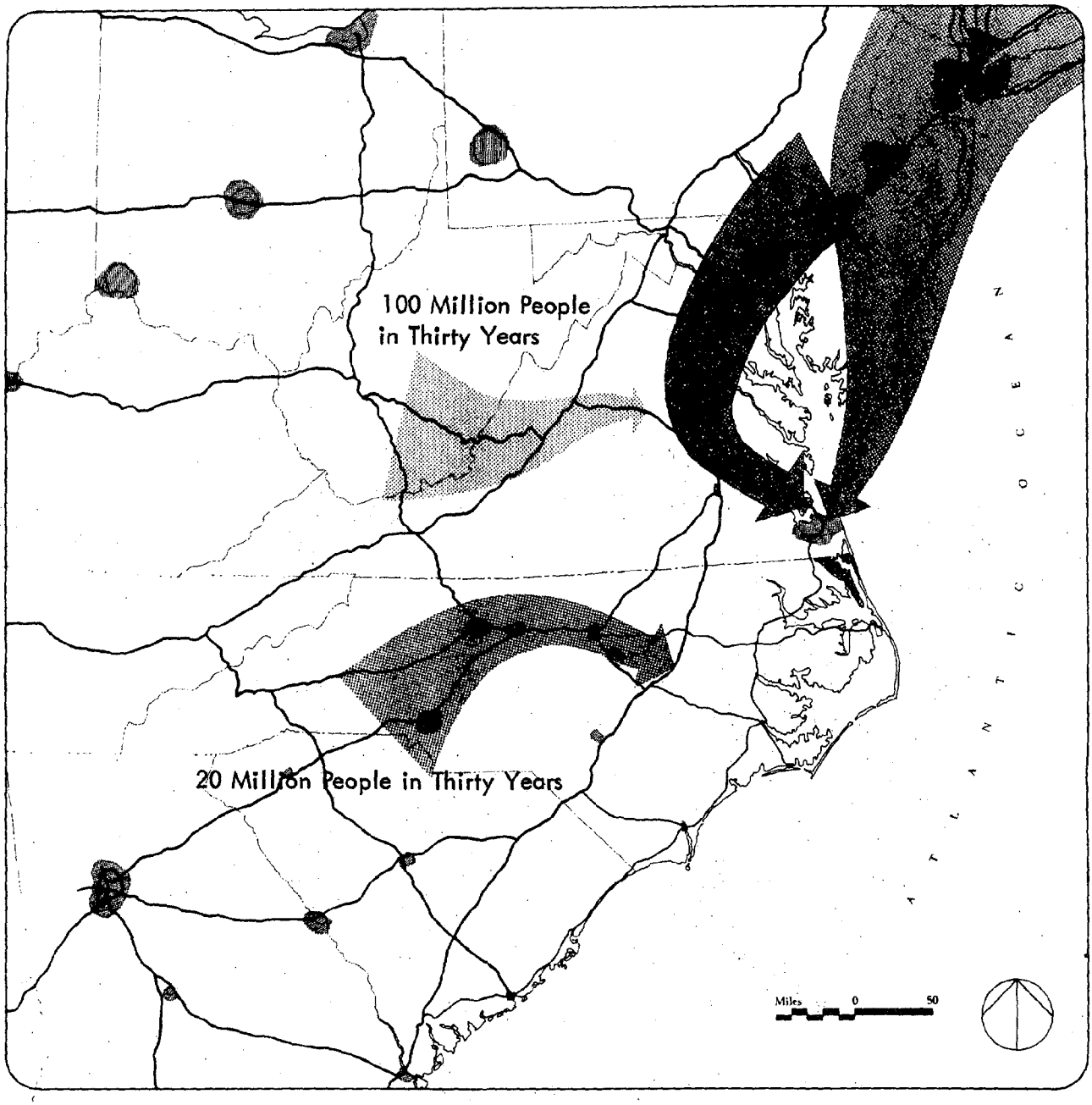
DISTANCES FROM CURRITUCK



AMTRAK PASSENGER SERVICE

No direct Amtrak service to any part of Coastal Recreation Area

Closest Carrier: C & O Railway/ Richmond to Newport News



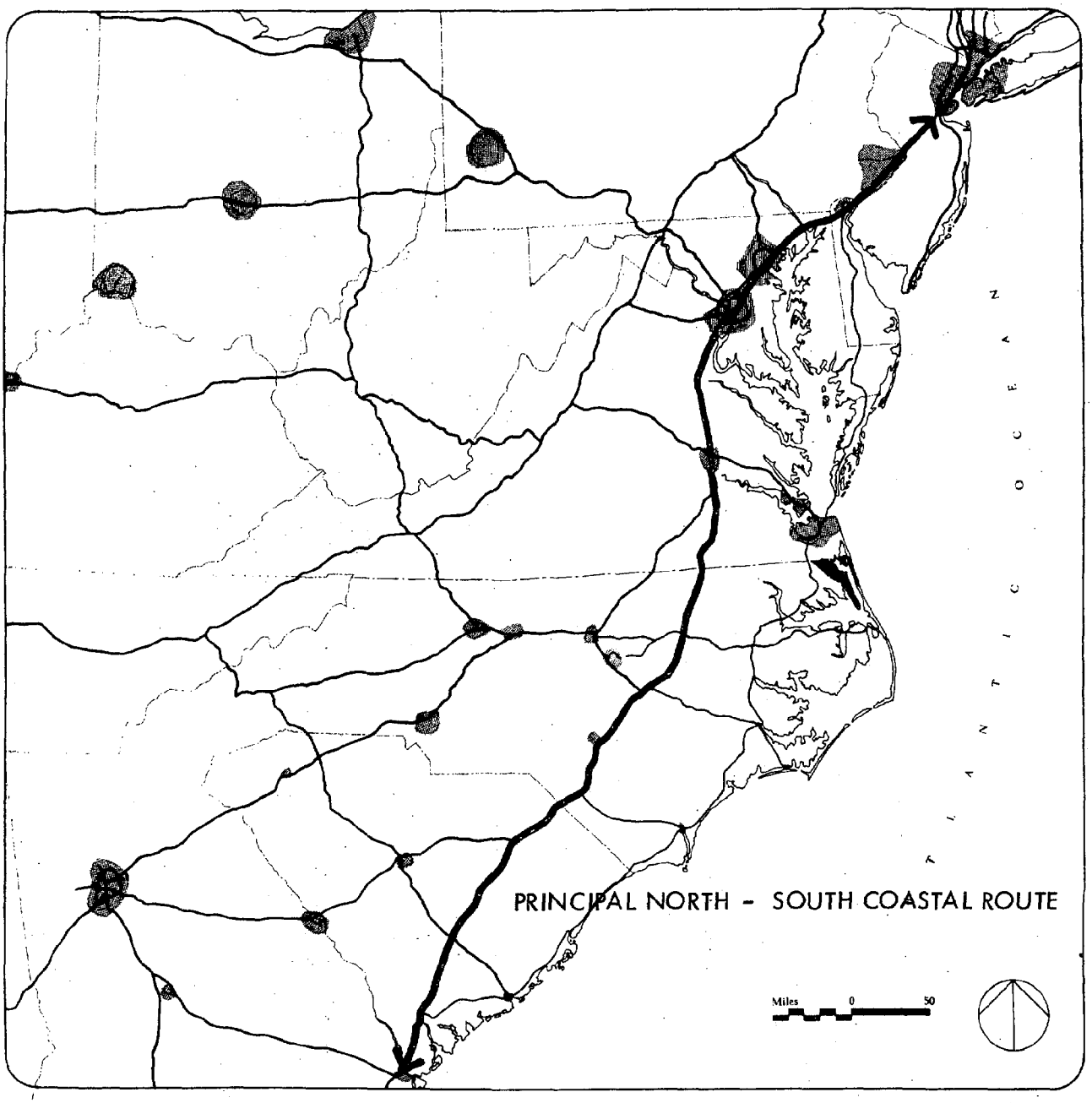
ACCESS PRESSURE

Northern access demand through Norfolk/Portsmouth

Southern access demand primarily from Piedmont Crescent

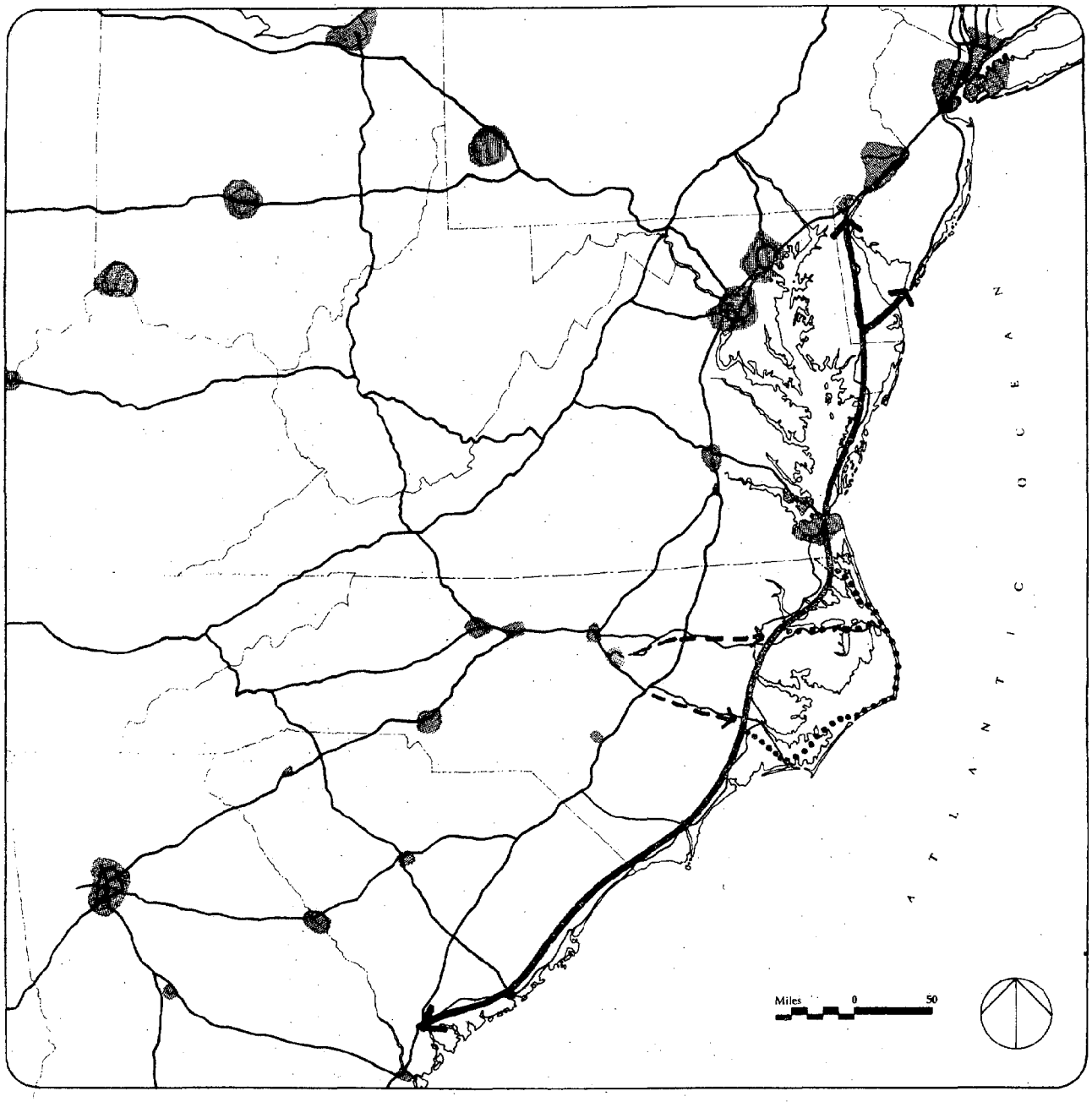
The Mid Atlantic Region:

ALTERNATIVE ACCESS SCHEMES



PRESENTLY-PLANNED TRANSPORTATION SYSTEM

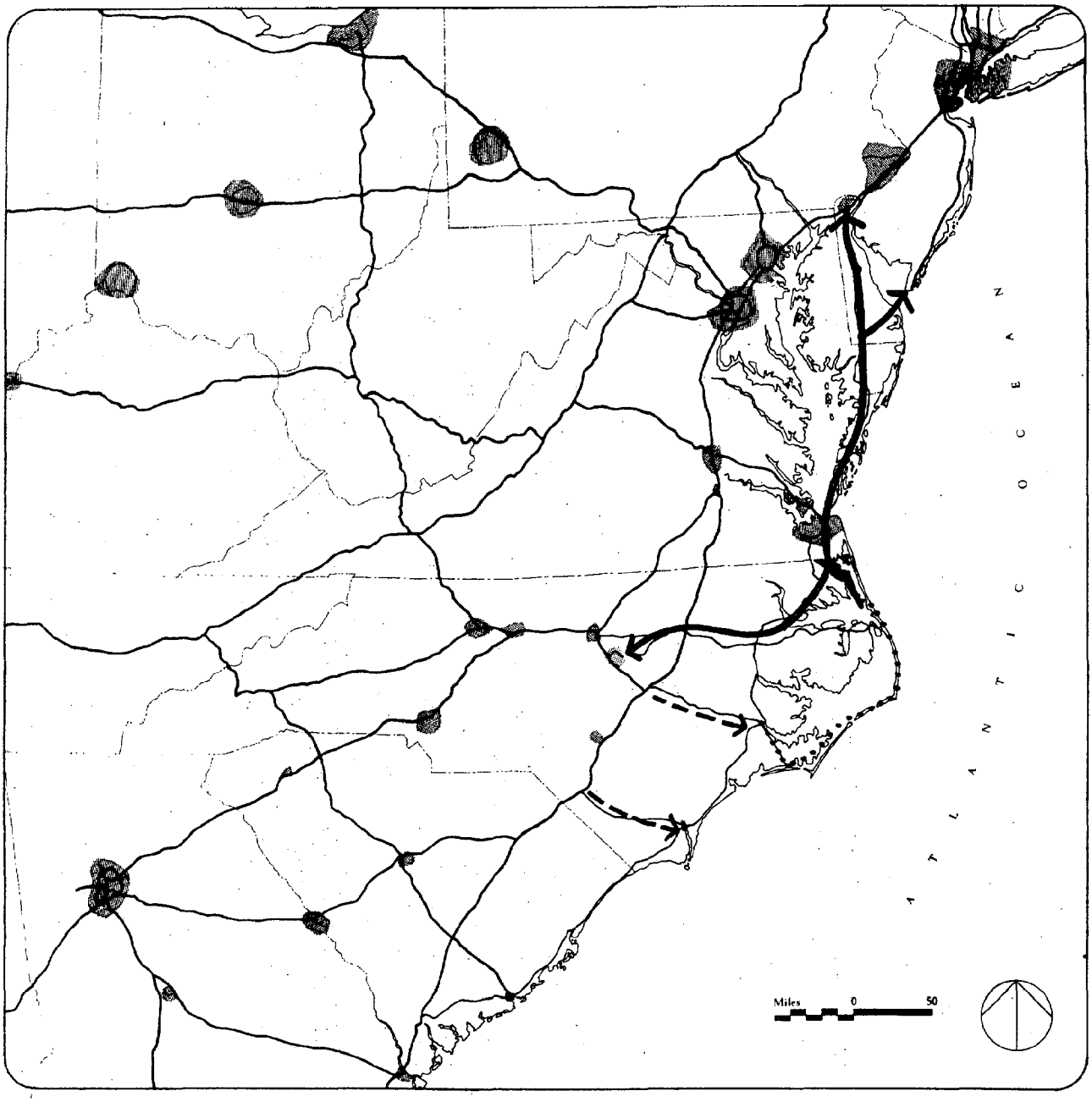
Interstate Highway System
-no adequate east-west accessfrom inland population centers to Coastal Recreational Area



NORTH - SOUTH COASTAL AUTO ROUTE

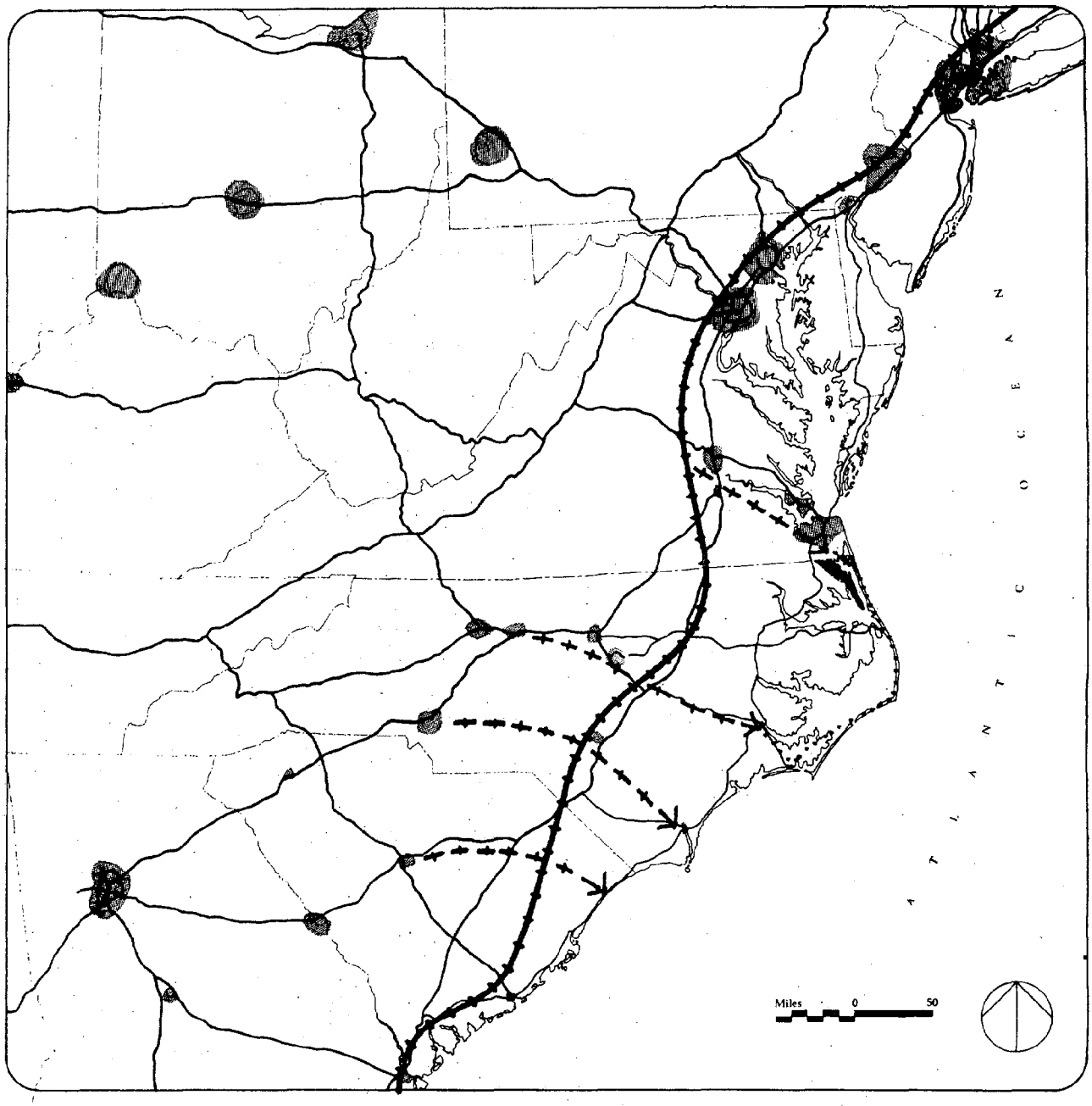
With Possible Outer Banks Scenic Loops

-provides north - south travel through Coastal Recreational Area



NORTH CAROLINA CRESCENT - DELAWARE LOOP AUTO ROUTE

With intermediate lateral feeders below, and scenic routes through Outer Banks
- provides access from Northern Population Centers to the Coastal Recreational Area's Northern Section and also provides major east - west access to the N.C. Piedmont Crescent.

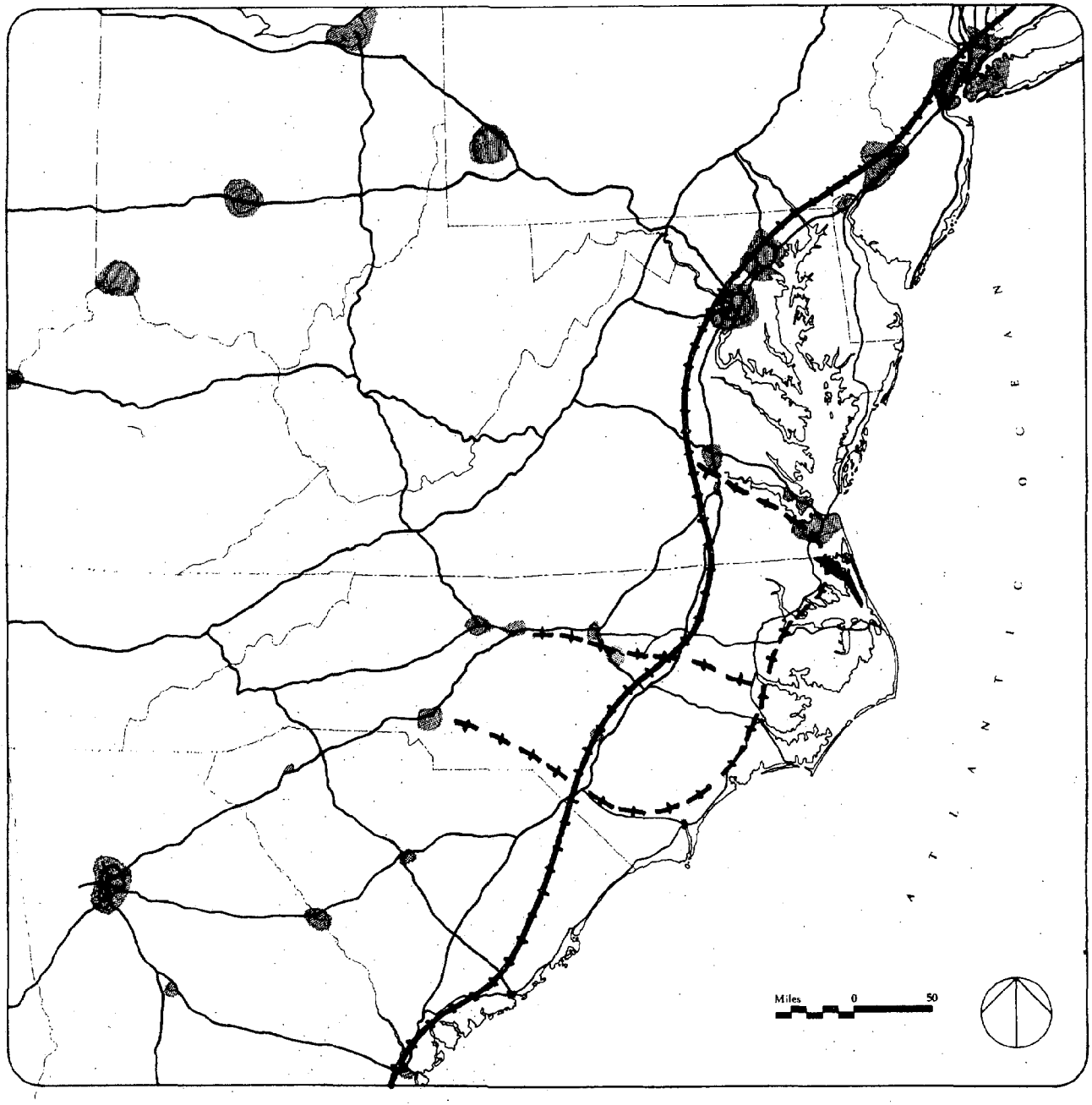


LATERAL RAIL ROUTES

From Existing North-South Mainline

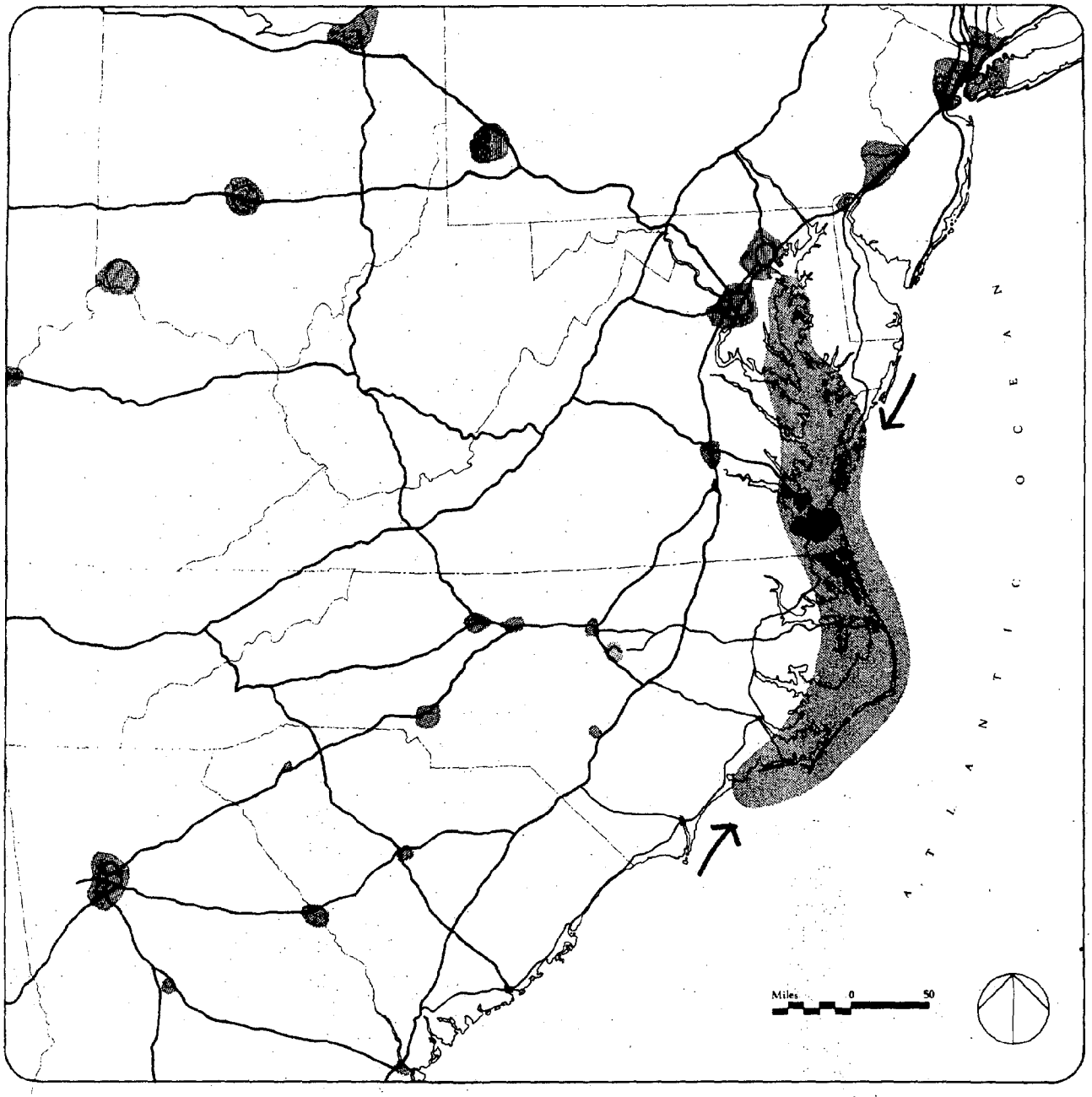
Possible Connection with Outer Banks Monorail

Encouragement of Concentrated Development at Coastal Recreational Area terminals



COASTAL LOOP RAIL ROUTE

- provides access from Existing North - South Mainline to Coastal Recreational Area
-provides linkage between population centers within the Coastal Recreational Area



HOVERCRAFT ROUTE AREA

Open coastal water

Protected inland water

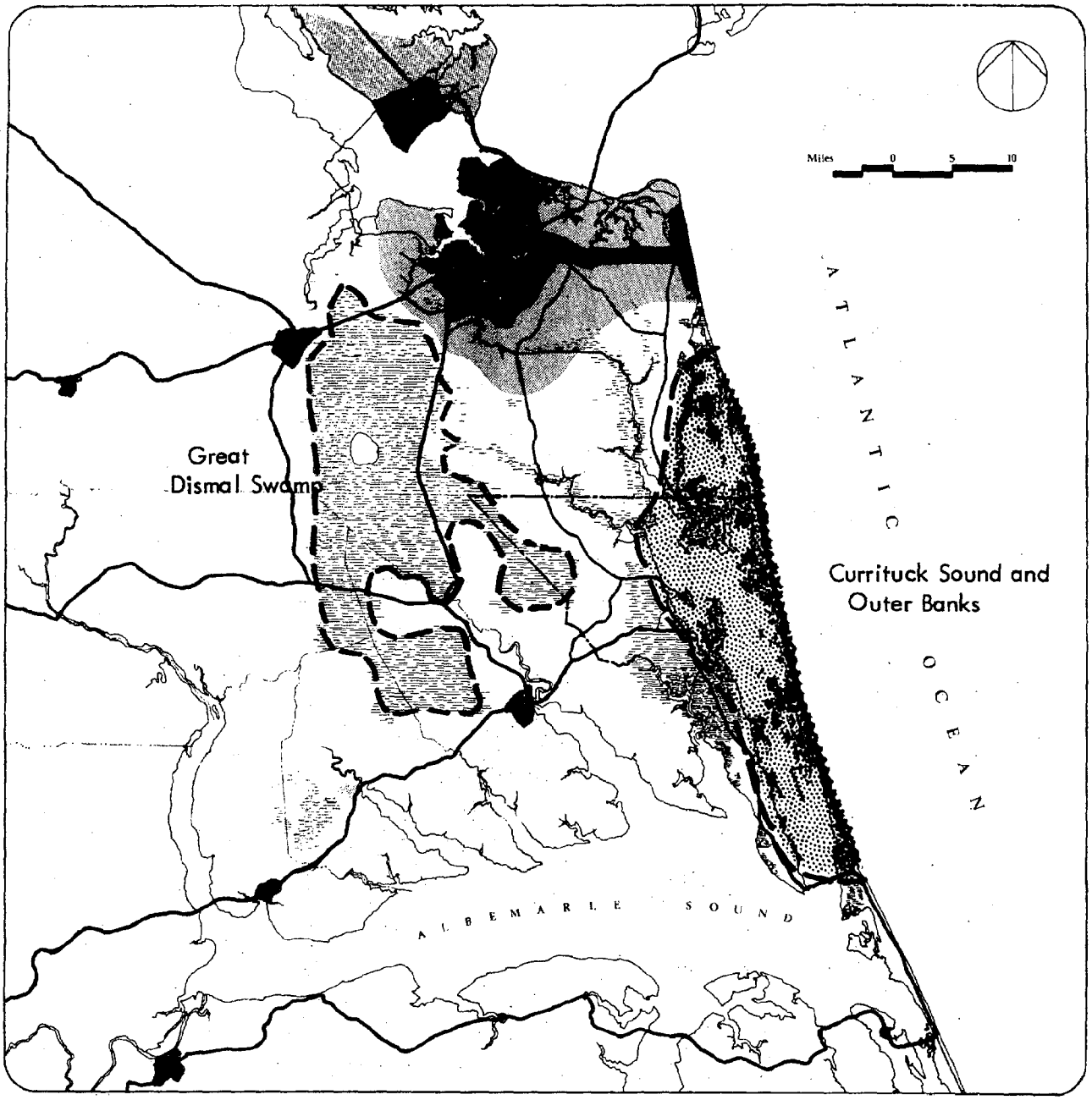
Swamps and open wetland

The following section describes natural and human-related factors affecting the development of access systems in the region. The studies indicate a large demand for access from the north, both to Currituck County and beyond to Dare County. The Currituck Sound and Outer Banks barrier dunes are the most environmentally sensitive areas to man-influence; these directly affect the location of access systems in the region.

Alternative schemes to improve access to the Tidal Region are outlined. The choice of the preferred alternative will have to take the following factors into consideration: The most appropriate access point from the north affecting both Virginia and North Carolina, the price and availability of land, the volumes of traffic with special attention to through traffic in urbanized areas, and suitable points of access to the Outer Banks.

Mass transportation is also proposed as an alternative system; however, it will require large scale parking facilities at terminals and secondary transportation/ distribution systems for on-the-line stations. Mass transit will encourage linearly concentrated land development patterns.

TIDEWATER REGION

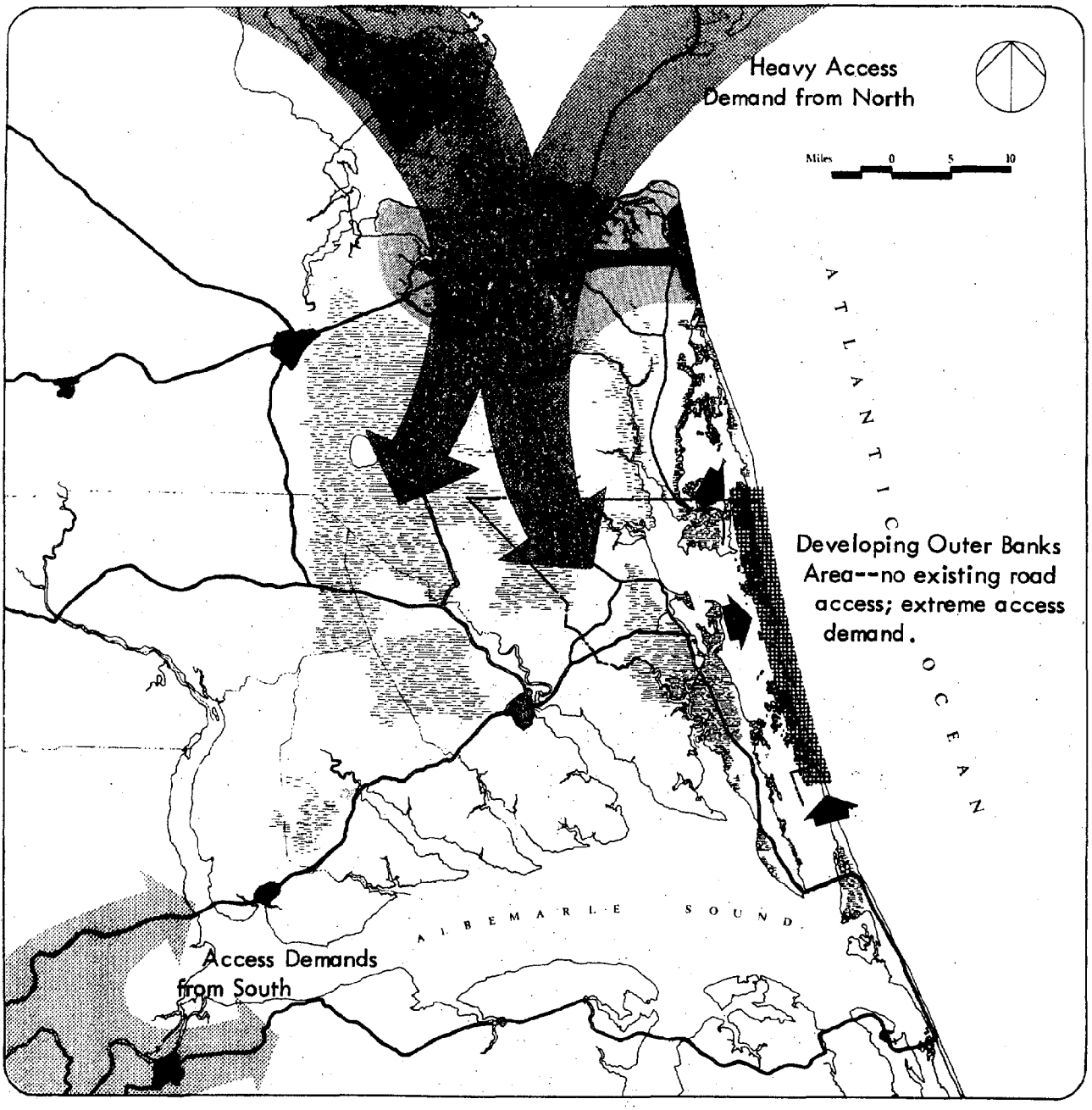


NATURAL CONSTRAINTS

Currituck Sound: Extremely sensitive to man-interference; Extremely low tolerance to pollution of any kind.

Outer Banks Barrier Dunes: Critical storm protection for entire area; Threatened by construction and uncontrolled recreational activity.

Great Dismal Swamp: Ecologically sensitive to man-interference; Generally unfeasible access route.

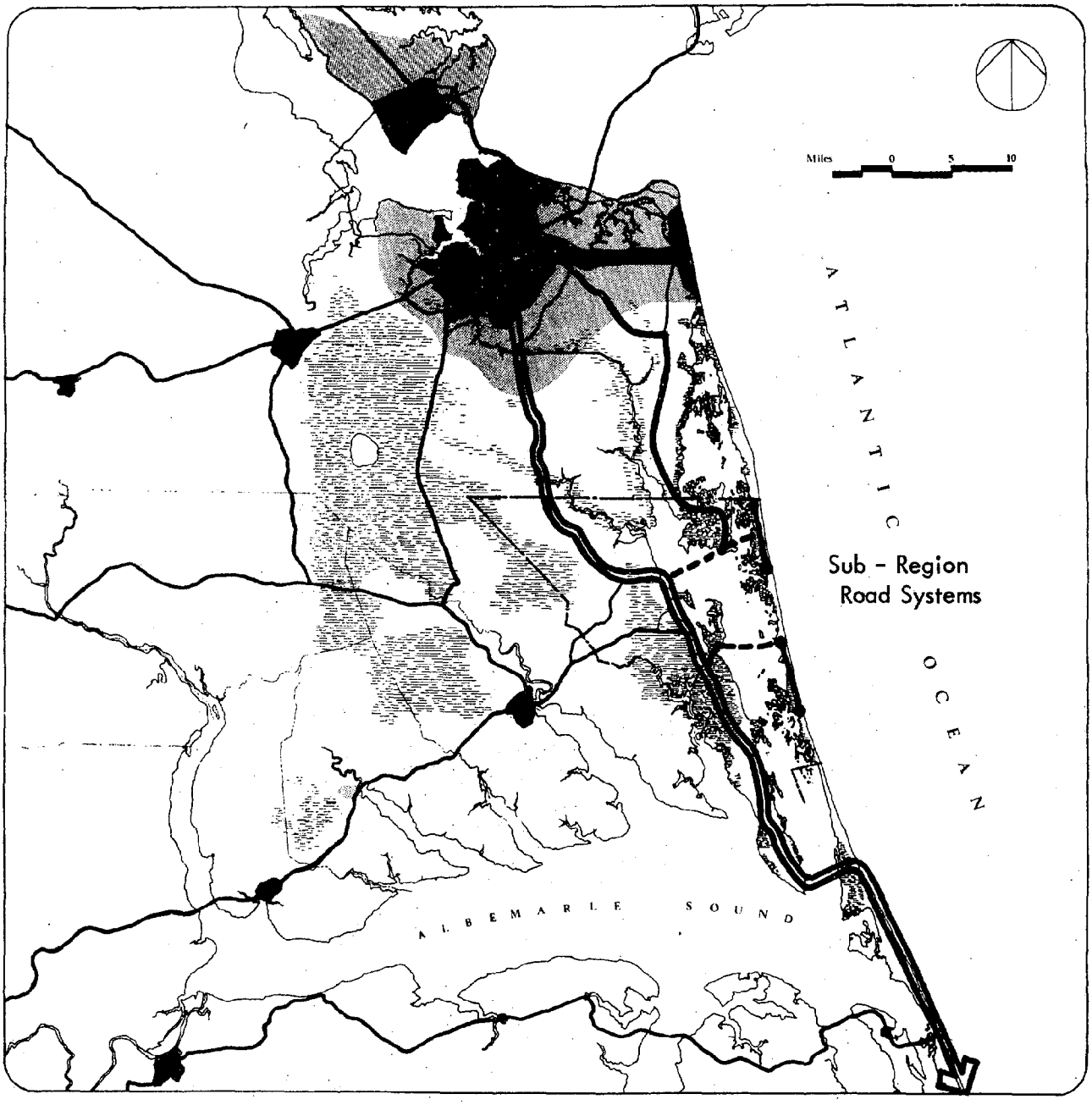


ACCESS PRESSURE

Access demand from the north comes both from the rapidly growing Norfolk Metropolitan Area and the vast number of people in the northern states who will be travelling south through that area.

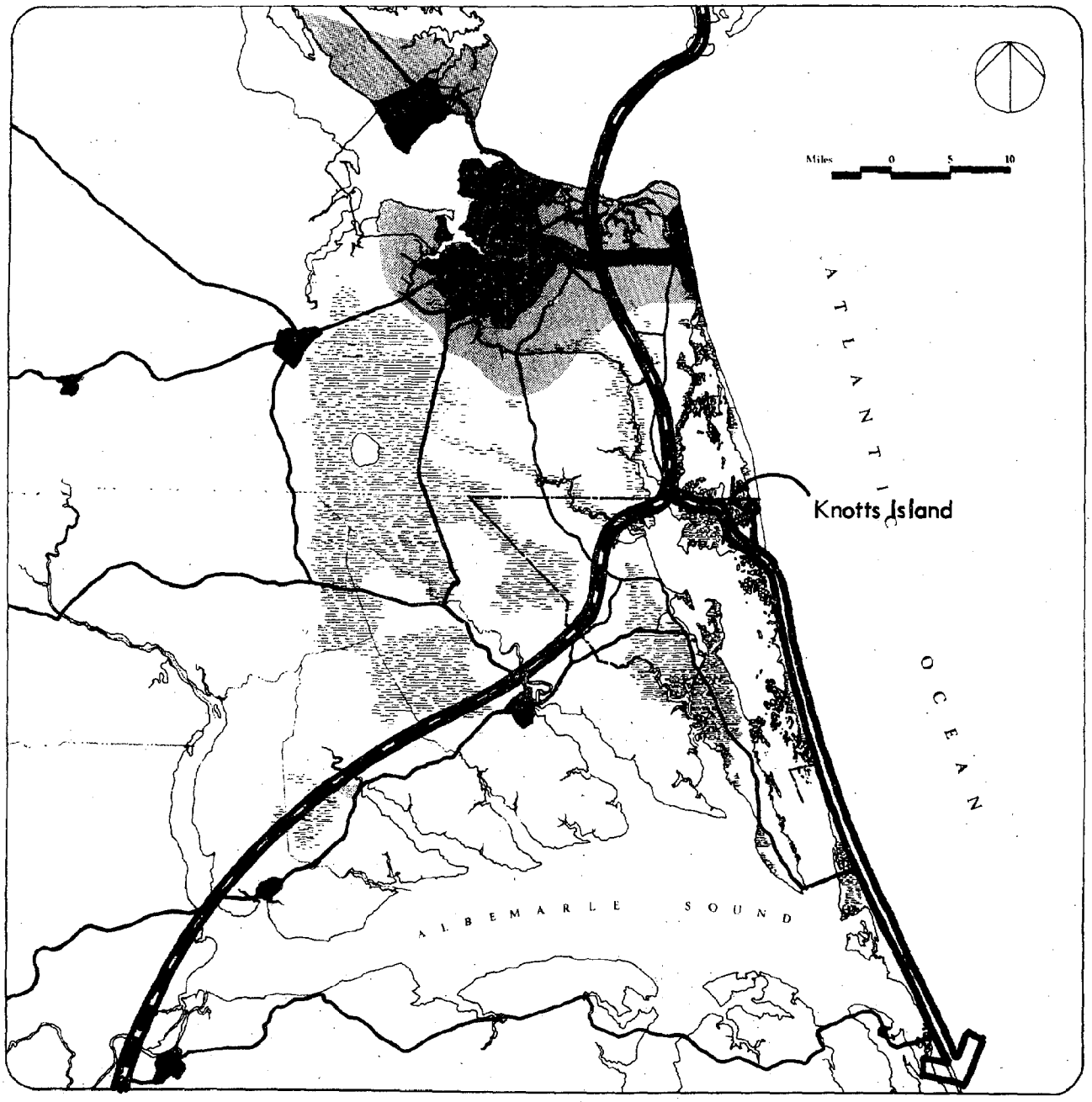
The Tidewater Region:

ALTERNATIVE SCHEMES



MINIMUM CHANGE IN EXISTING ROAD SYSTEM

Four-lane county through route becomes major access route to Nags Head and Hatteras.



OUTER BANKS THROUGH ROUTE II – High speed route swings close to Back Bay and crosses county mainland from Knotts Island.

Reduces county through traffic.

Bypasses congested Chesapeake urban area.

COUNTY THROUGH ROUTE I - High speed coastal route

Avoids congested urban Chesapeake (corridor in area of lower land values)

Crosses Currituck Sound below Virginia state line

Through traffic in Currituck

COUNTY THROUGH ROUTE II - High speed coastal route in most direct North - South travel corridor

Some county through traffic (to Outer Banks)

Route through Chesapeake urban area

MAJOR-MINOR THROUGH ROUTES

Double Route System

Enlarges existing through routes and superimposed new high speed coastal route

SHORELINE EXPRESSWAY

High Speed Coastal Route follows shore line from Virginia Beach to Hatteras and beyond

Reduces through traffic in both county and inland coastal region

Difficult maintenance likely

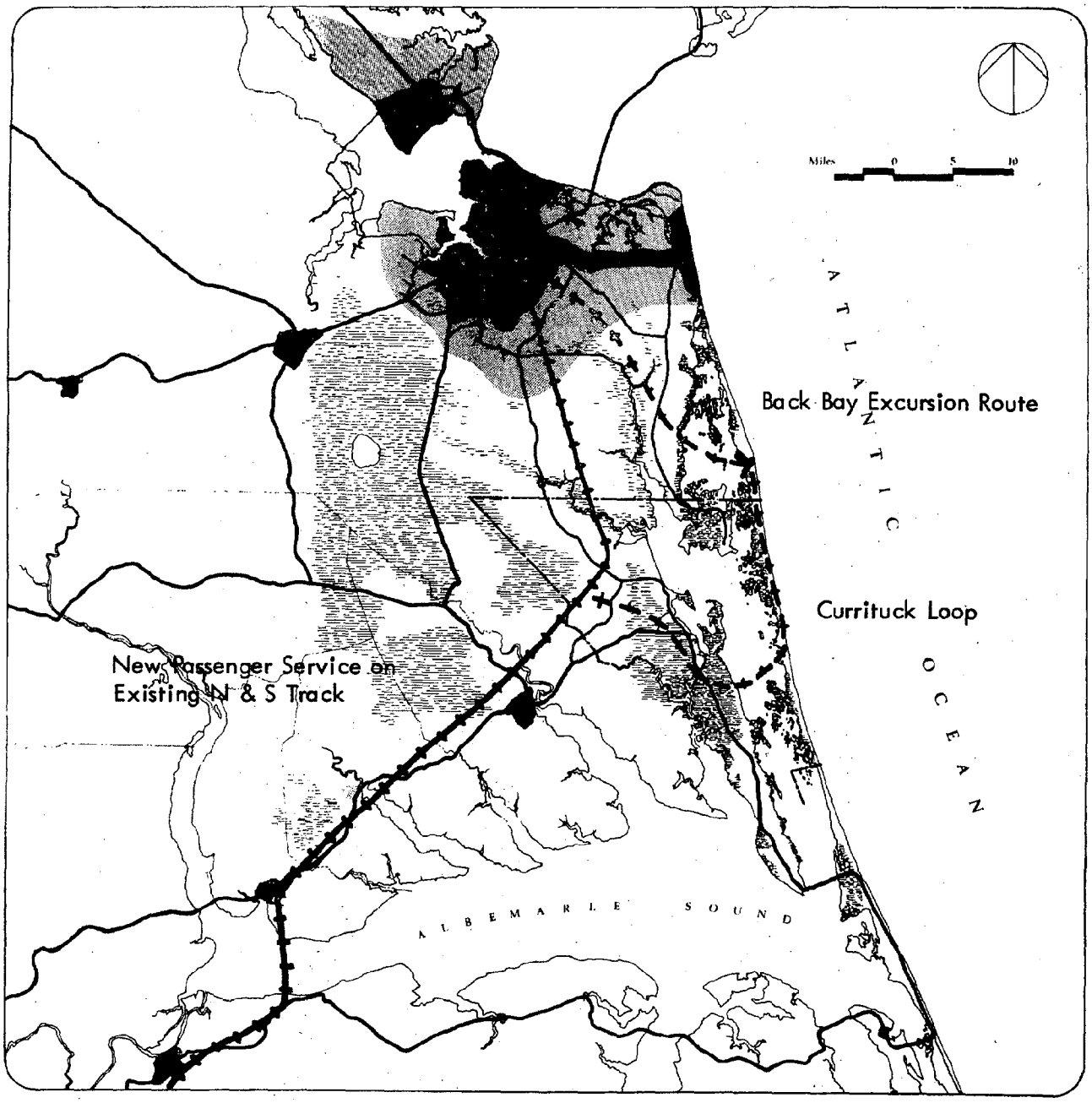
Damage to environment of Outer Banks likely

OUTER BANKS THROUGH ROUTE I

High speed coastal route comes through urban Chesapeake in most direct North - South travel corridor.

Outer Banks limited access parkway from Knotts Island to Hatteras and beyond.

Reduced traffic flow through county mainland.



ELEVATED MONORAIL: BACK BAY - CURRITUCK LOOP

Back Bay Route - Already Proposed

Currituck Extension - Loops Back To Coastal Passenger Main Lines

ELEVATED MONORAIL: SHORELINE THROUGH ROUTE

Back Bay Route --already proposed

Shoreline Extension down Outer Banks

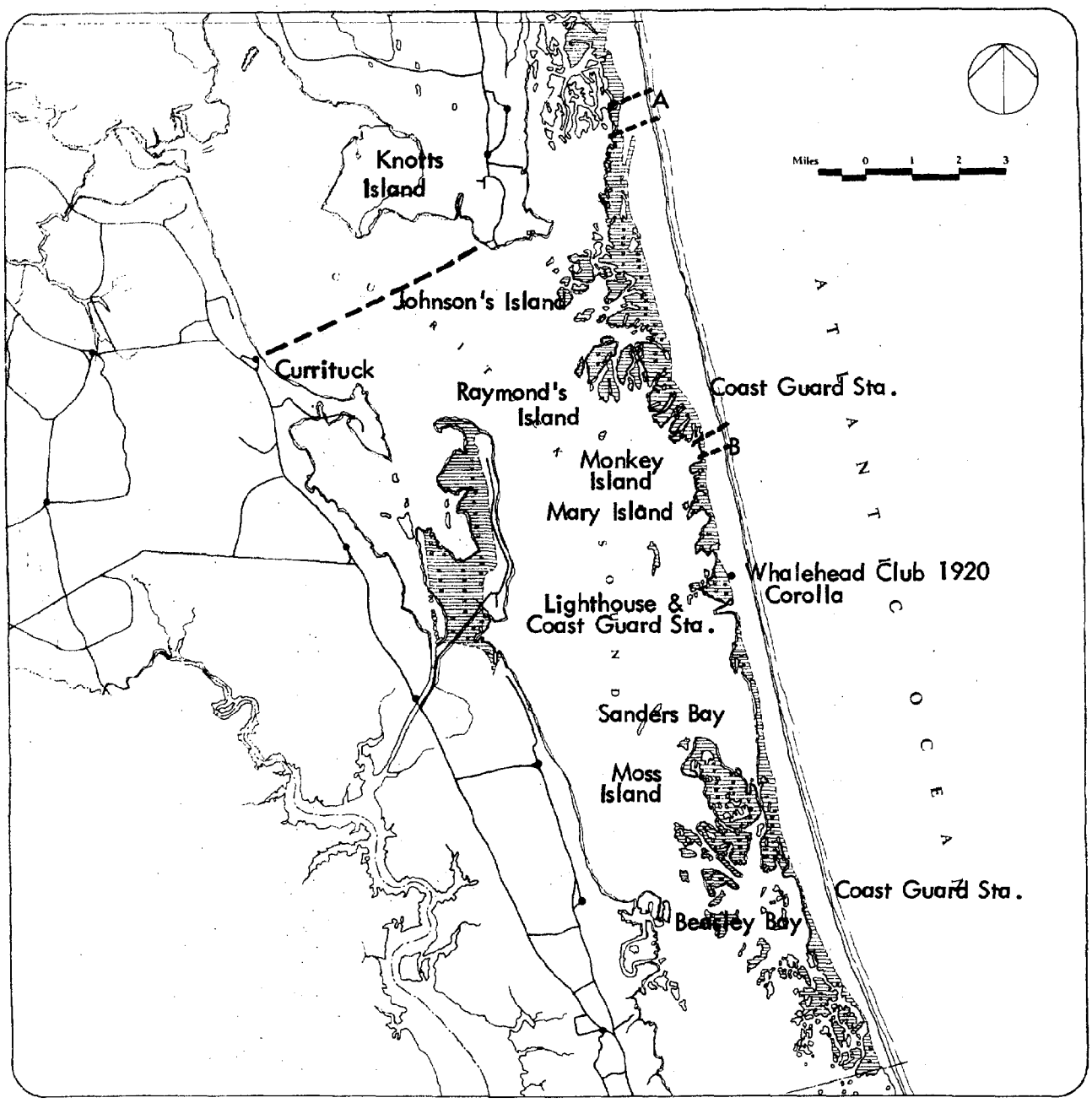
At the county level, historic events, natural systems, physiographic data, and land ownership patterns were studied to determine the best location for access points to the Outer Banks, the intensity of development, and the necessary controls to insure proper land use.

Some of the major problems to be encountered are: the poorly planned subdivision of large tracts of land, inadequate development standards, and lack of access.

Corolla village, the lighthouse, and Knight clubhouse complex should be considered as a potential area for historic preservation, and could also act as a gateway for public access to the Currituck Outer Banks.

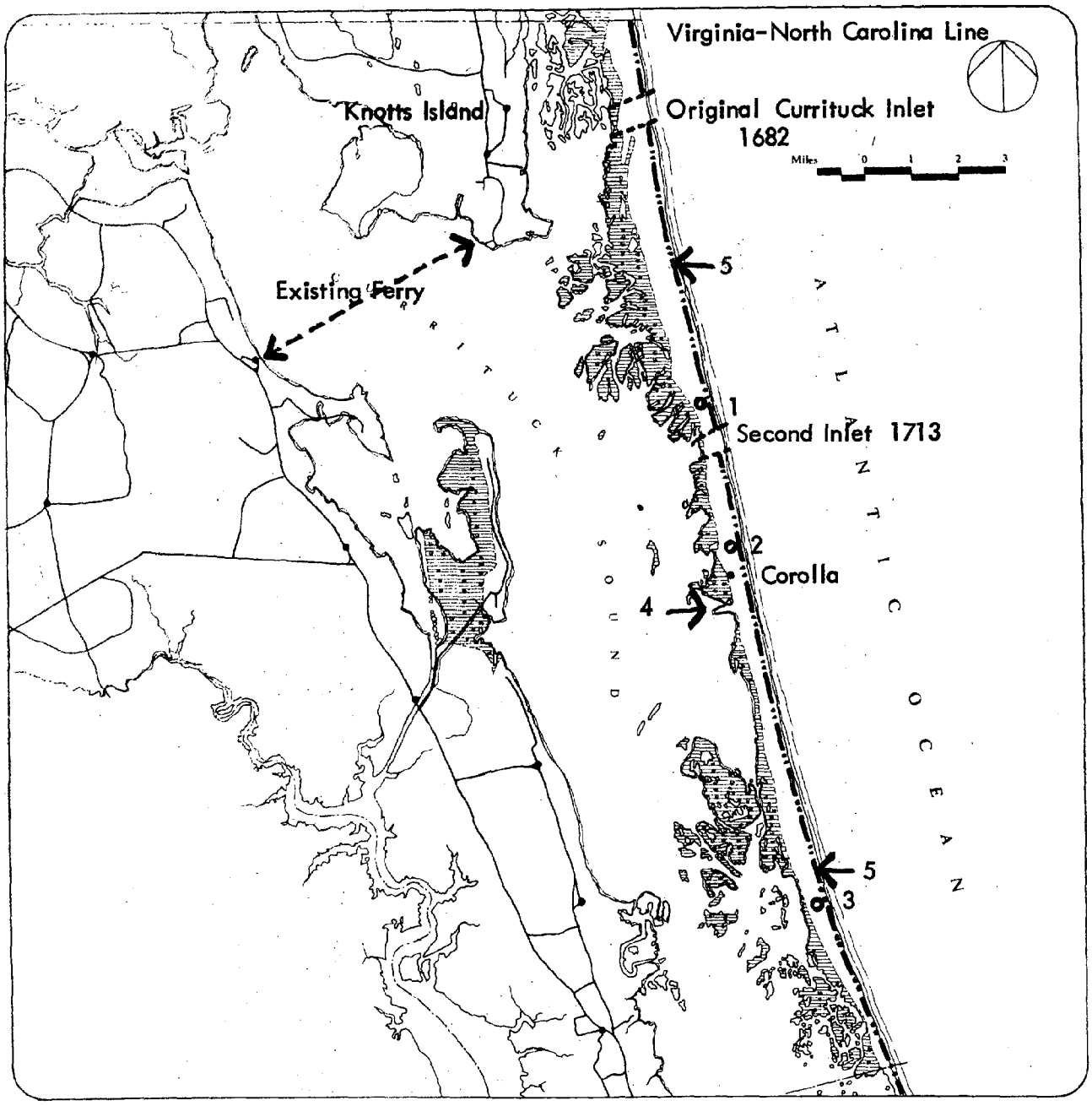
Alternative access schemes are proposed in this section of this report, and the corresponding development schemes follow them.

CURRITUCK COUNTY



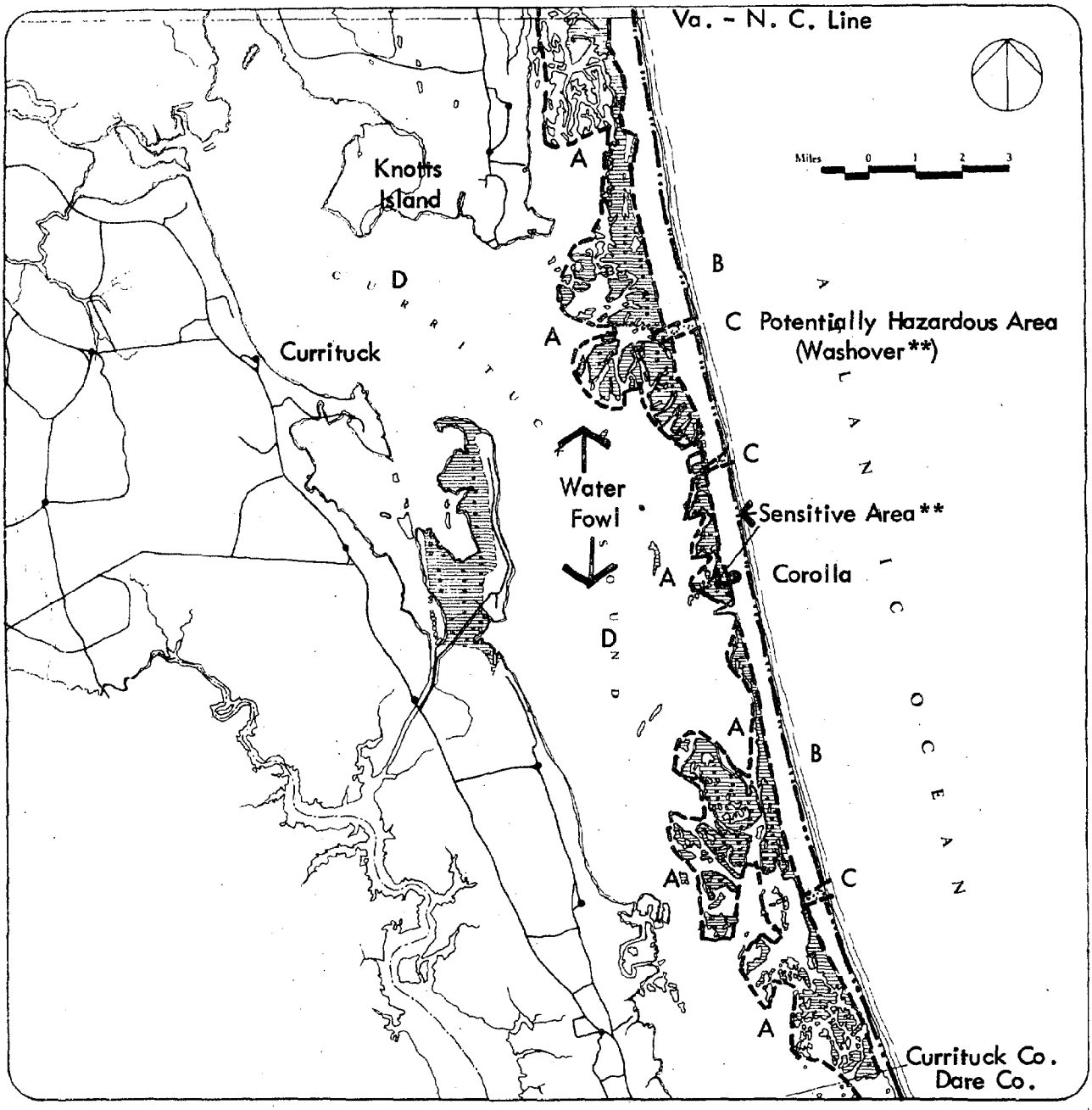
HISTORICAL DATA

Outer Banks approx. 6,000 years
1526 Currituck Sound Salt Water/First known map of Outer Banks by Amerigo Vespucci's nephew
1650 Settlements develop in region, settlement from Virginia colony
1657 Knott family settles Knotts Island
1670 Currituck created as a Province
1682 Currituck Inlet opens for schooners and sloops to "Port Currituck" carrying lumber, wood products, shingles, barrels, staves, and some farm goods (A)
1713 New inlet cut by storm (B)
1726 N. C. General Assembly appropriates funds to mark new inlet
1728 Old Currituck inlet shoals; shipping to new inlet
1731 New Inlet shoals, later closes in 1828. Sound begins to change from salt to fresh water



HISTORICAL DATA

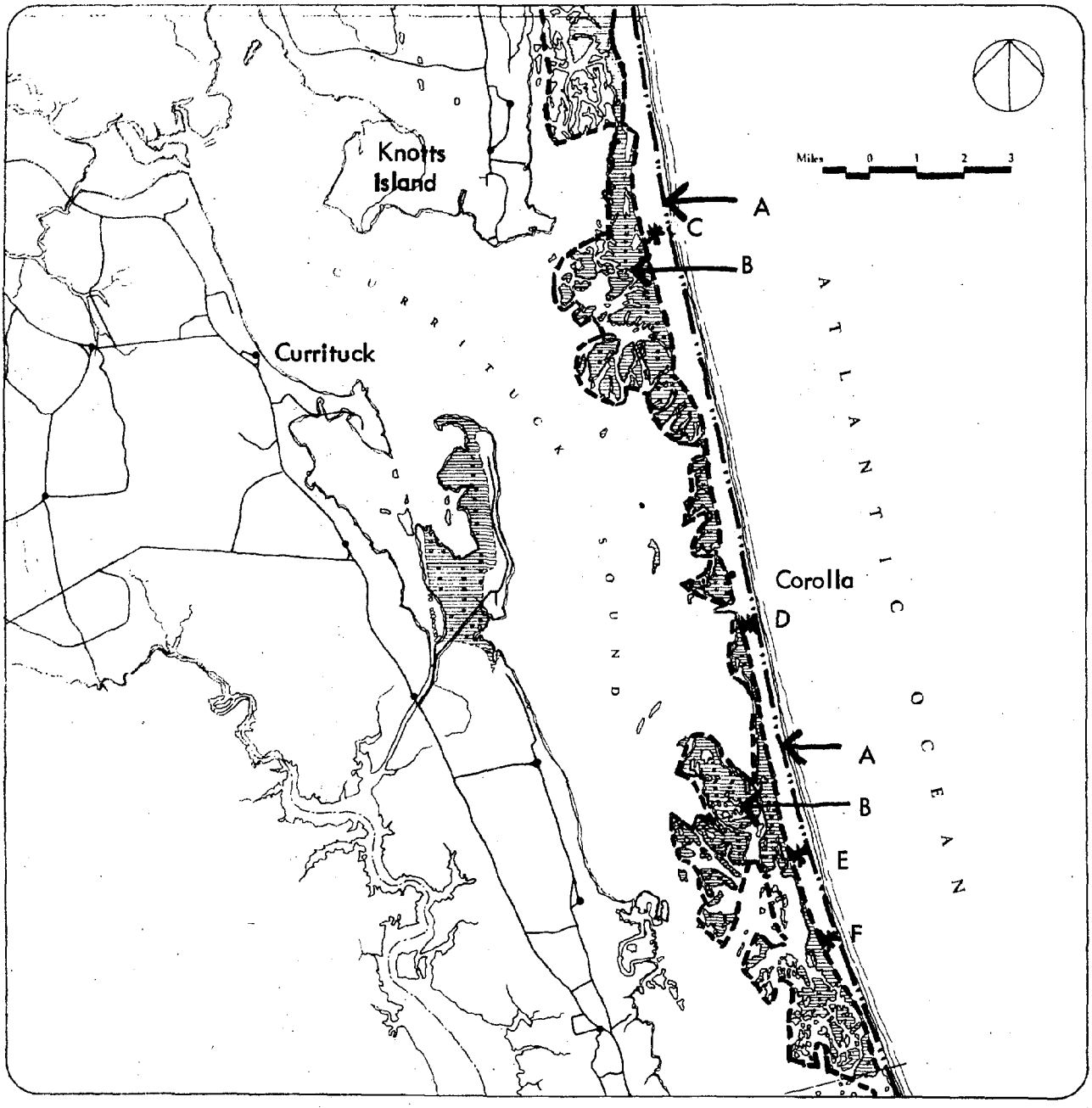
1. Penny's Hill Coast Guard Station
2. Currituck Light and Coast Guard Station
3. Poyner Hill Coast Guard Station
4. Whalehead Club Structure built 1920
5. Foredunes discontinuous and poorly vegetated due to grazing in previous years.



PHYSIOGRAPHIC DATA

A. Marsh areas--habitat for waterfowl, fish breeding; flood control
B. Coastal Wetlands
C. Potentially hazardous areas (washover zone)
D. Currituck Sound -- fresh water (4% salinity)
Major Sand Dunes

**Proposed definitions of environmental Areas; State of N. C. Planning Divison, Sept. 15, 1972



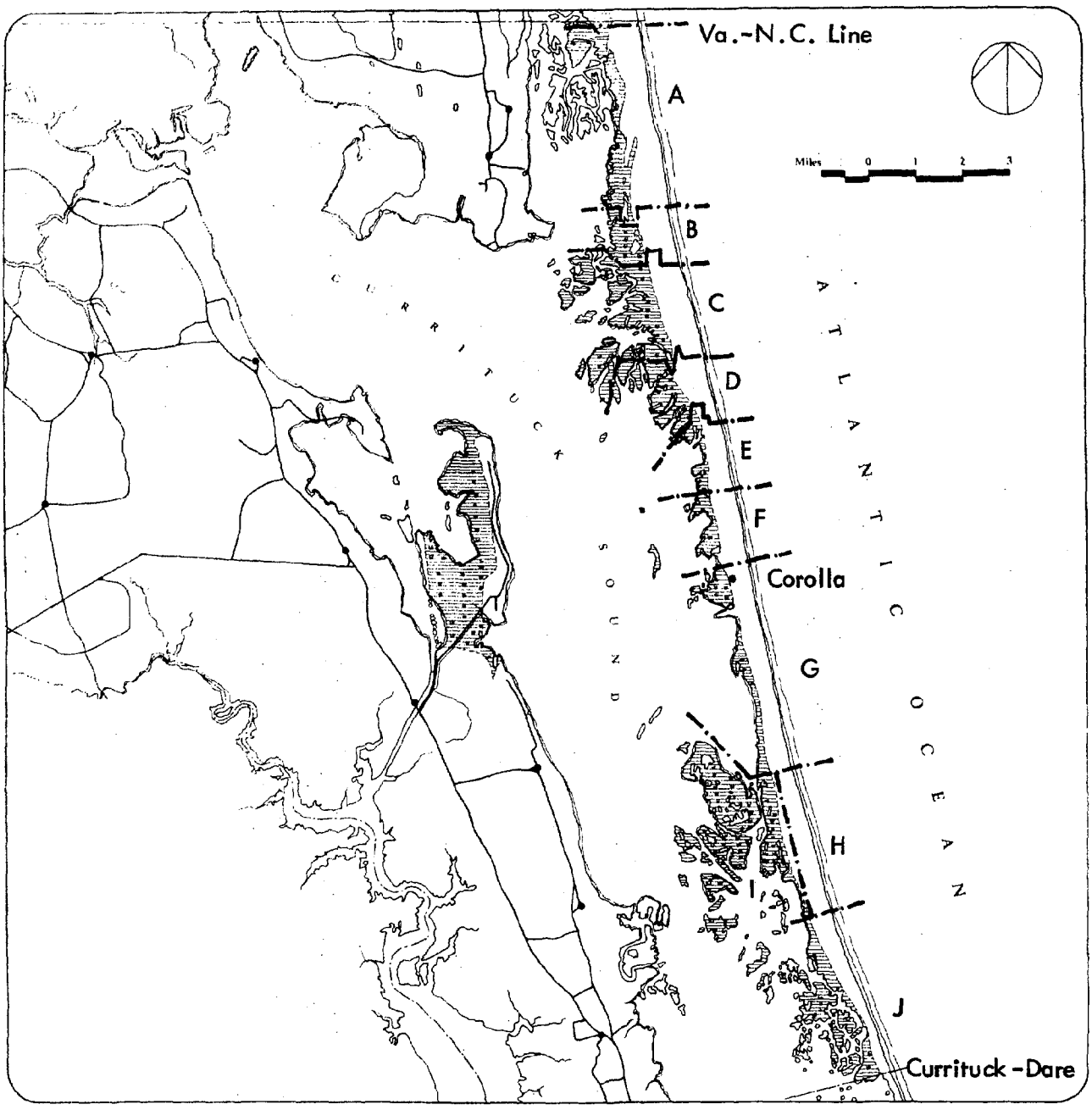
PHYSIOGRAPHIC DATA

A. Discontinuous Dunes - Areas that are sensitive to man, and should be restricted to building
B. Marsh Areas/Woodlands - Extremely Sensitive Areas

Sand dune of major proportion

These dunes are in a constant state of motion and all care should be taken to assure their freedom of motion and to prevent actions that would destroy their stability. (example: distruction of the dune grasses that stabilize these dunes, or physical distruction of these large or smaller sand dunes)

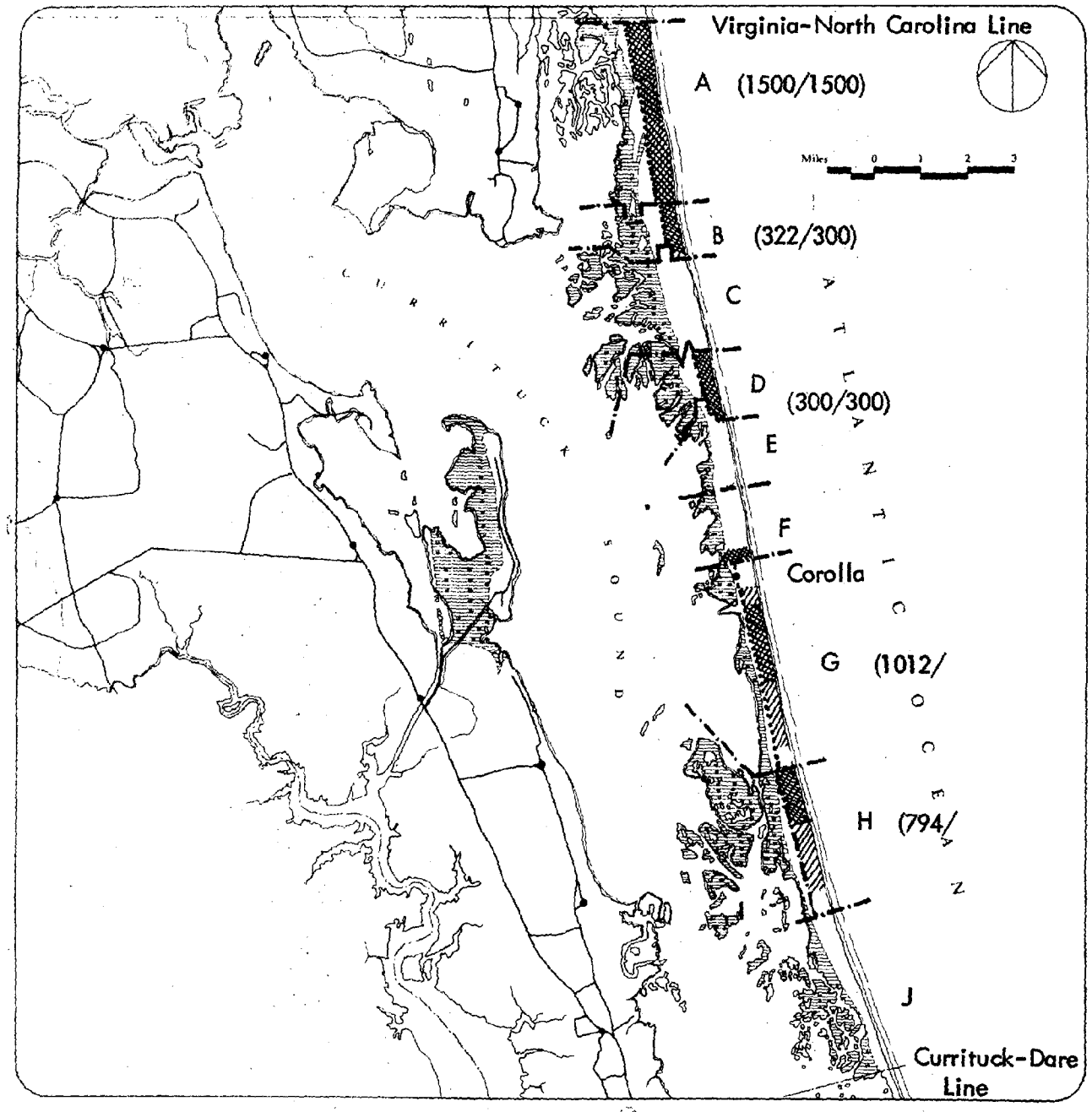
C. Fresh Pond Hill
D. Whalehead Hill
E. Poyner Hill
F. Piper Hill



OWNERSHIP PATTERN

Figures Approximate

A. Carova Beach Corp. (Kabler & Riggs)	18,800 ft. Oceanfront
B. Swan Beach Inc. (Kabler & Riggs)	7500 ft. Ocean front
C. Disharoon, Disharoon, Fender & Broyles	9400 ft. Ocean front
D. Oceanfront Associates	6800 ft. Ocean front
E. Multiple Ownership	7200 ft. Ocean front
F. Monkeys Island Club (c/o Frank Penn)	10,200 ft. Ocean front
G. Whalehead Island Club (Kabler & Riggs)	24,000 ft. Ocean front
H. Ocean Sands (Coastland Development Co.)	16,400 ft. Ocean front
I. Currituck Shooting Club	No ocean front (sound side)
J. Pine Island Club (c/o Earl Slick)	21,500 ft. Ocean front



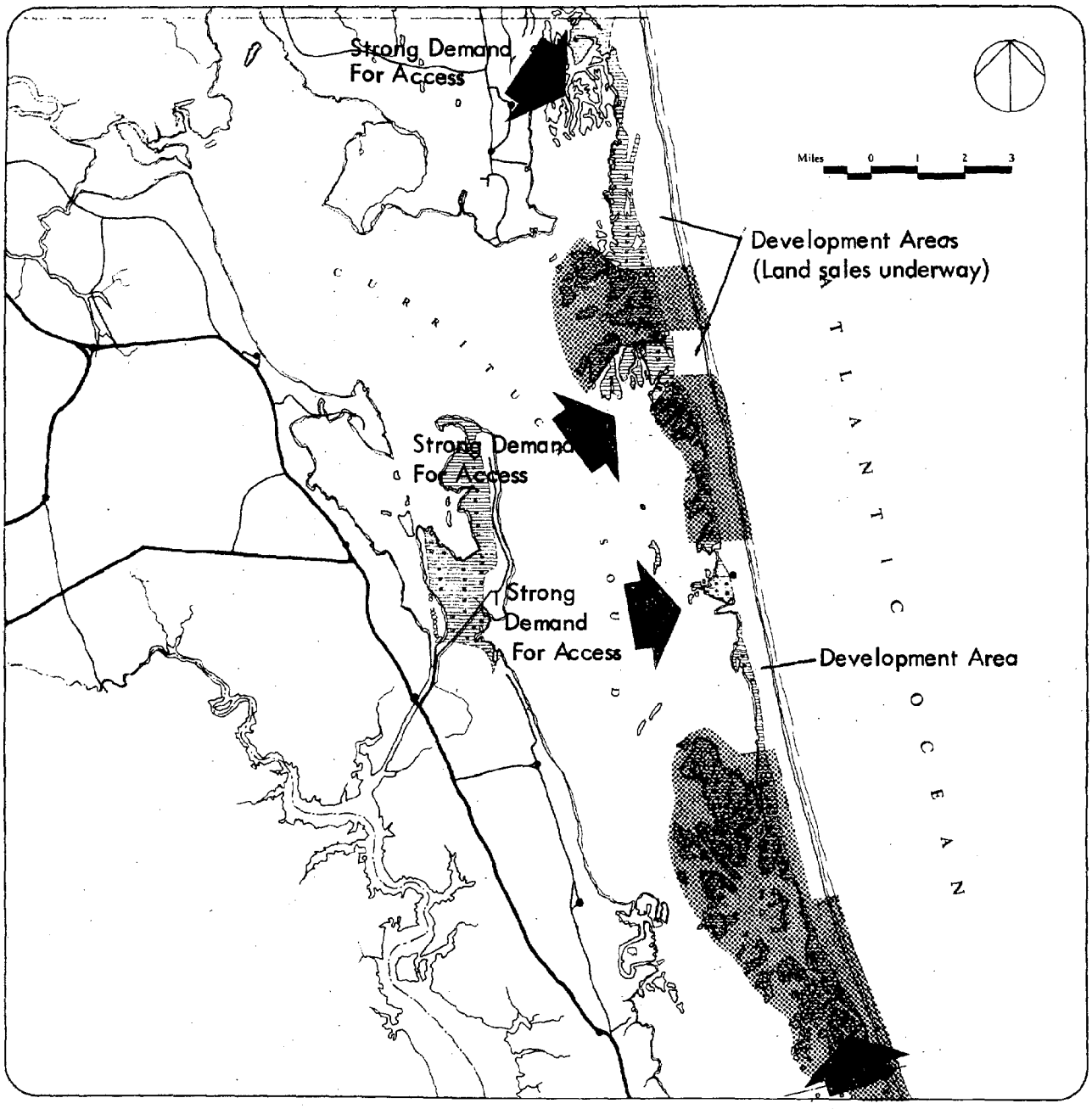
DEVELOPMENT PATTERN

Property Lines

Lots Sub-Divided

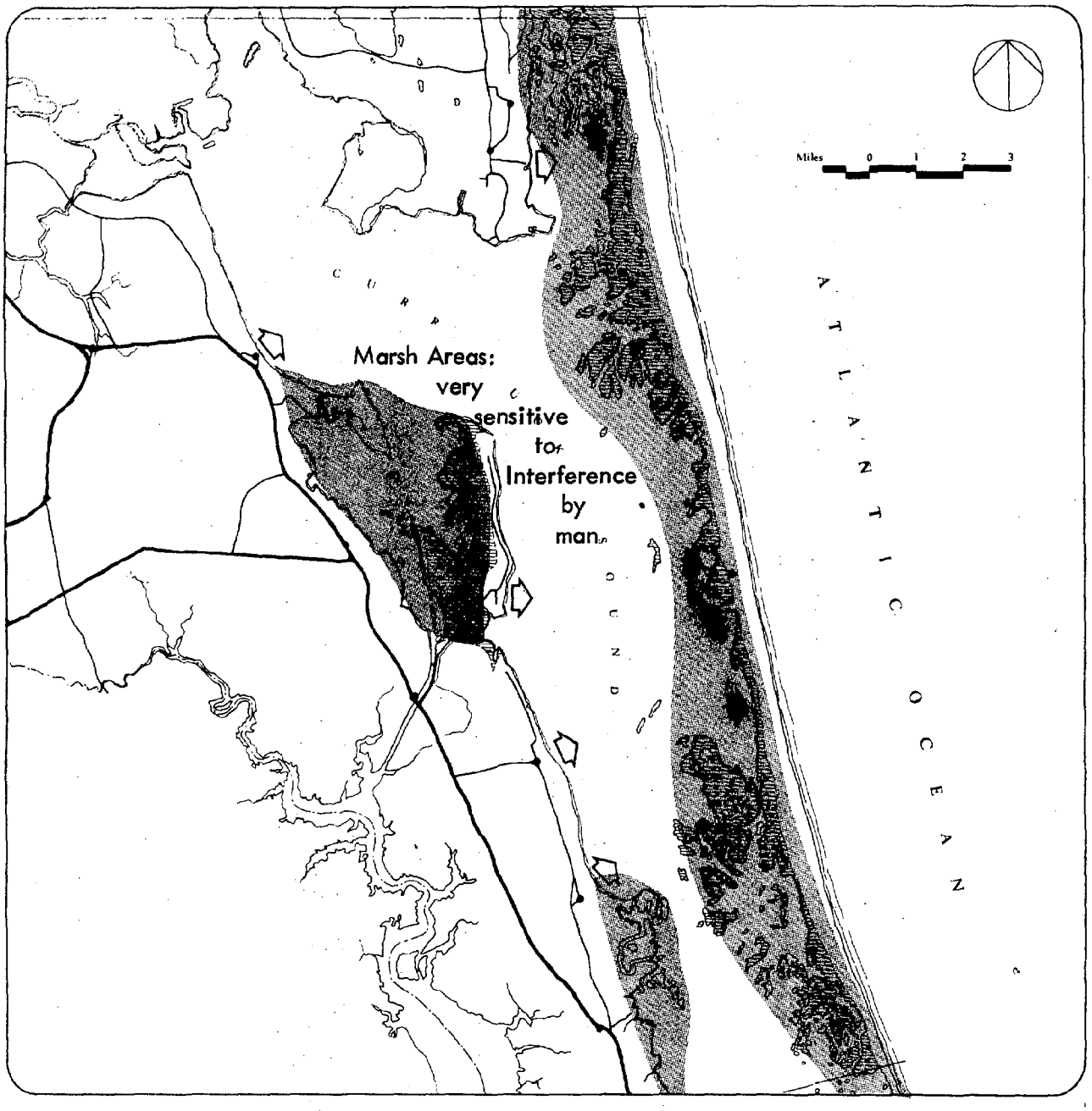
Lots Sold or in the process of

(planned/sold or in the process of)



ACCESS DEMANDS TO DEVELOPING AREAS

Dark areas show land not currently being developed or unsuitable for development.



NATURAL CONDITION CONSTRAINTS FOR ACCESS

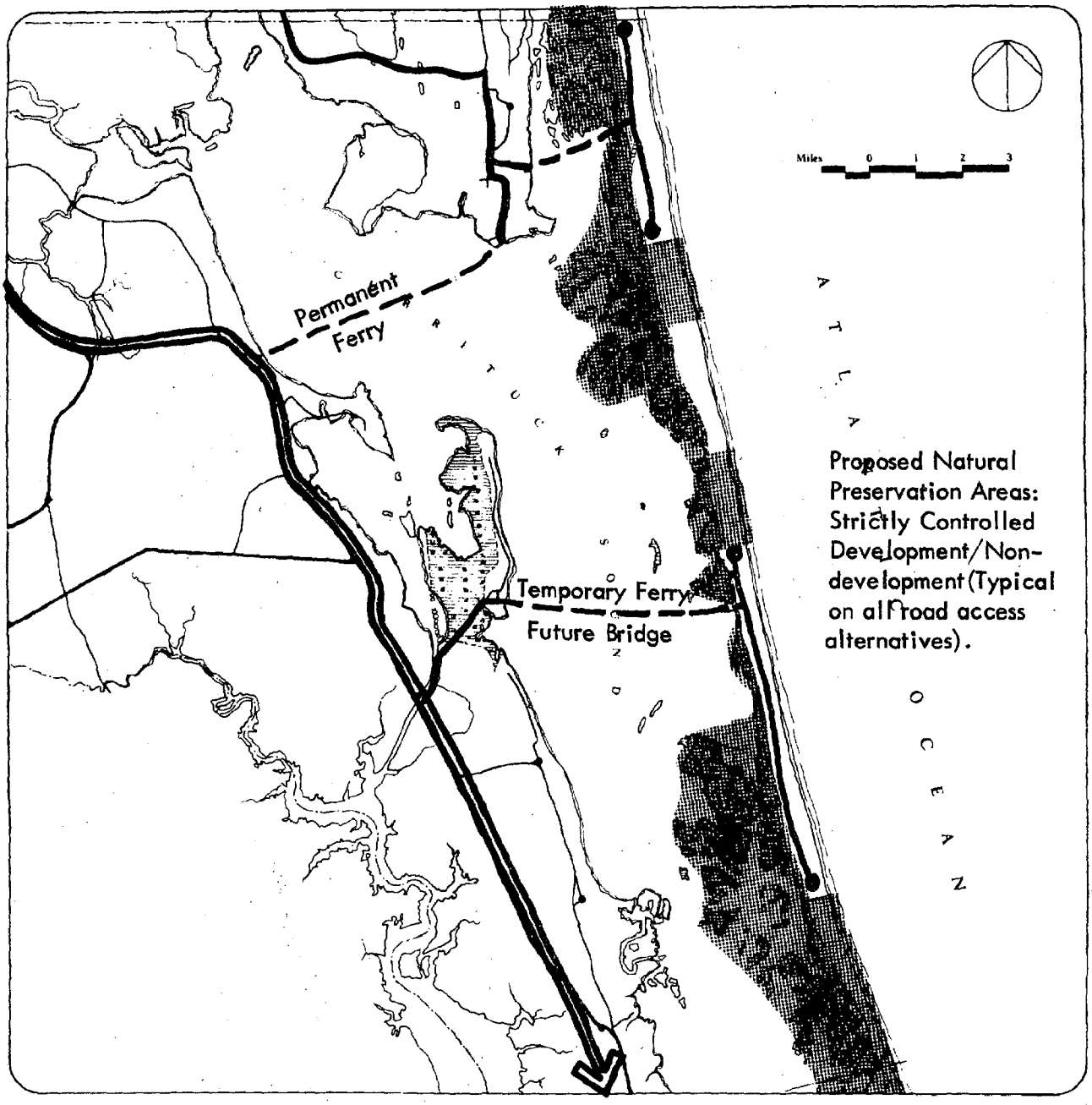
Minimum Impact Landing Areas

Mainland Ferry/Bridge Landing

Outer Banks Ferry/Bridge Landing

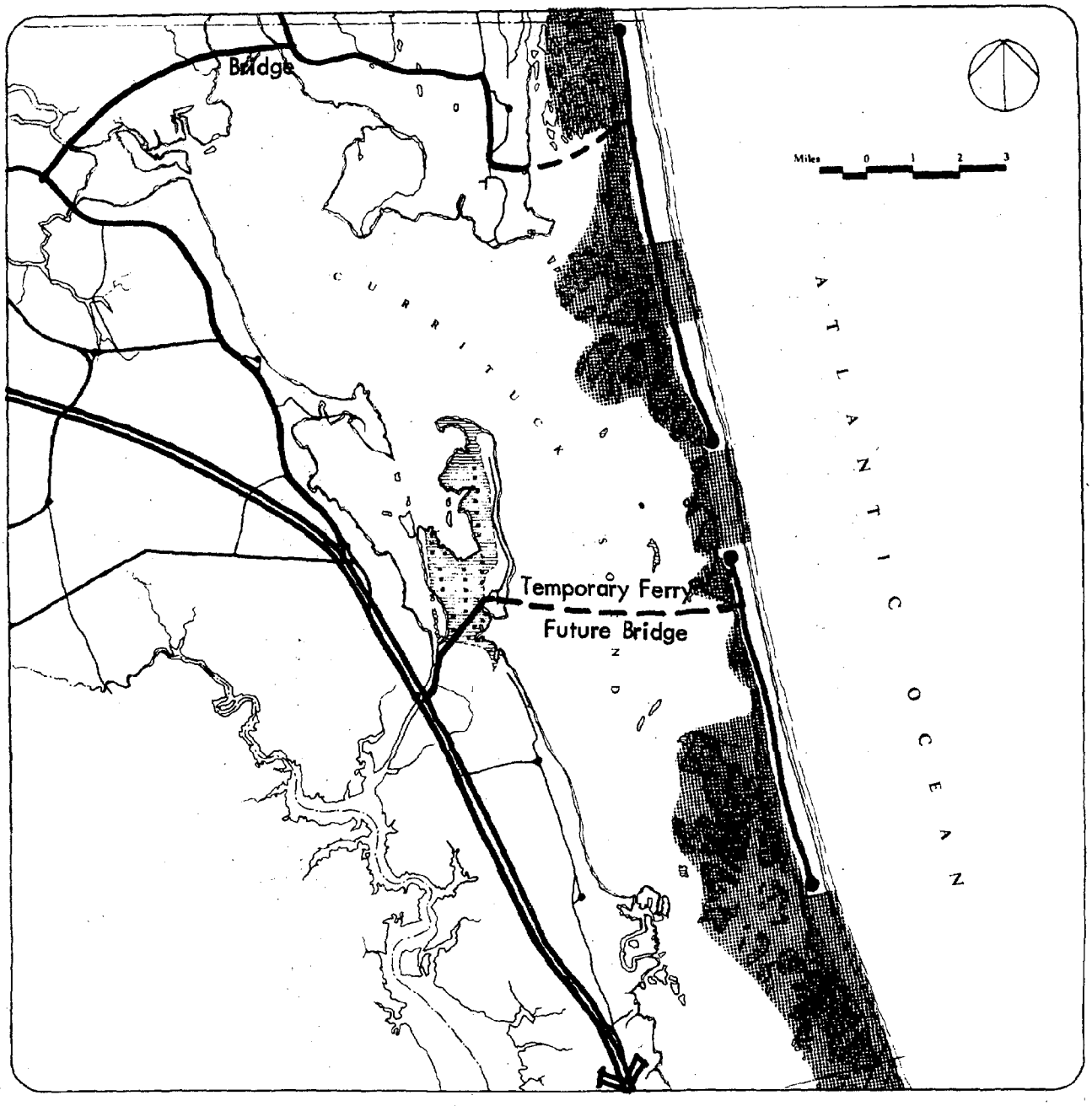
Currituck County:

ALTERNATIVE SCHEMES



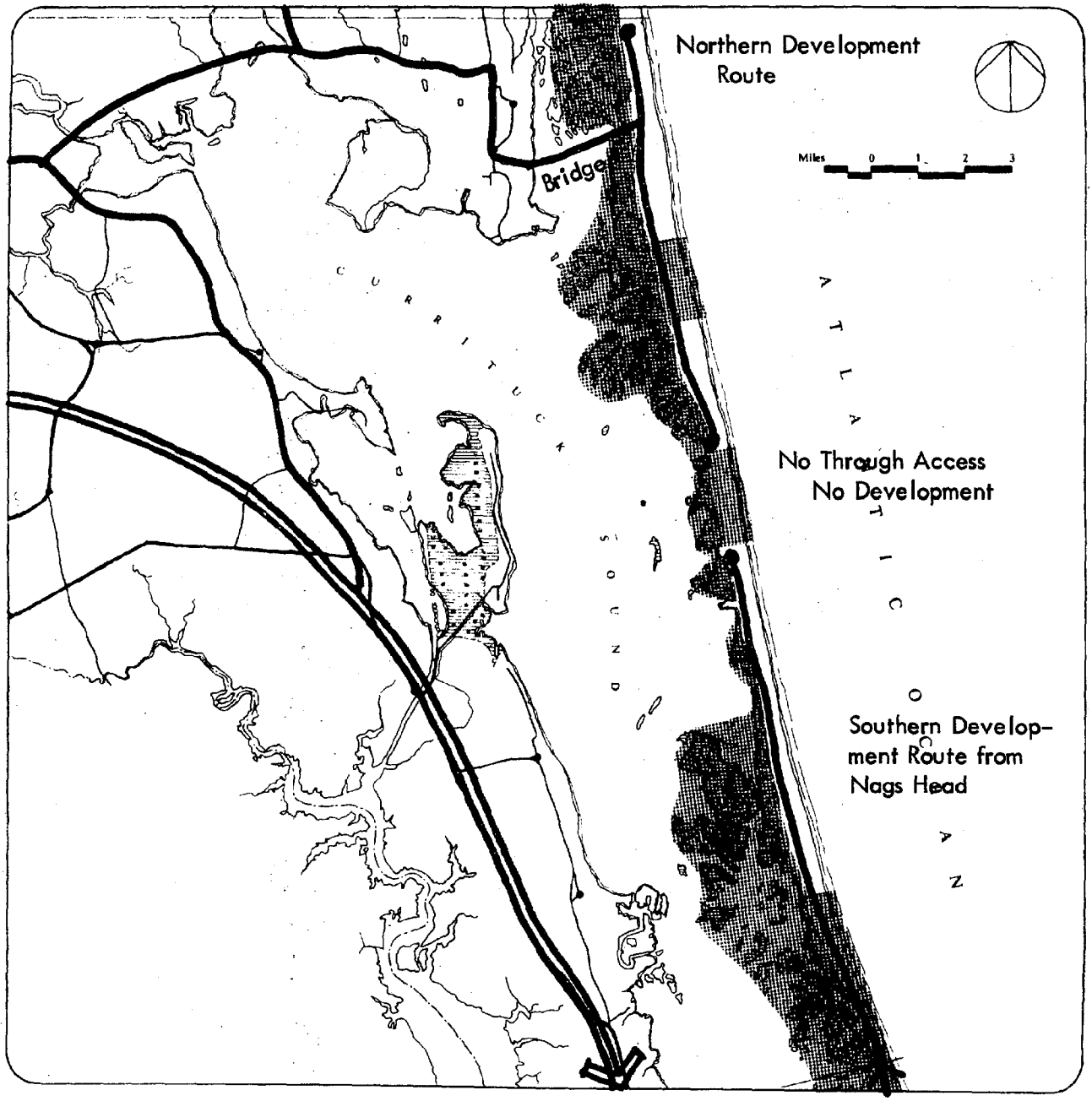
EXPANSION OF EXISTING SYSTEM

Four-lane county through route

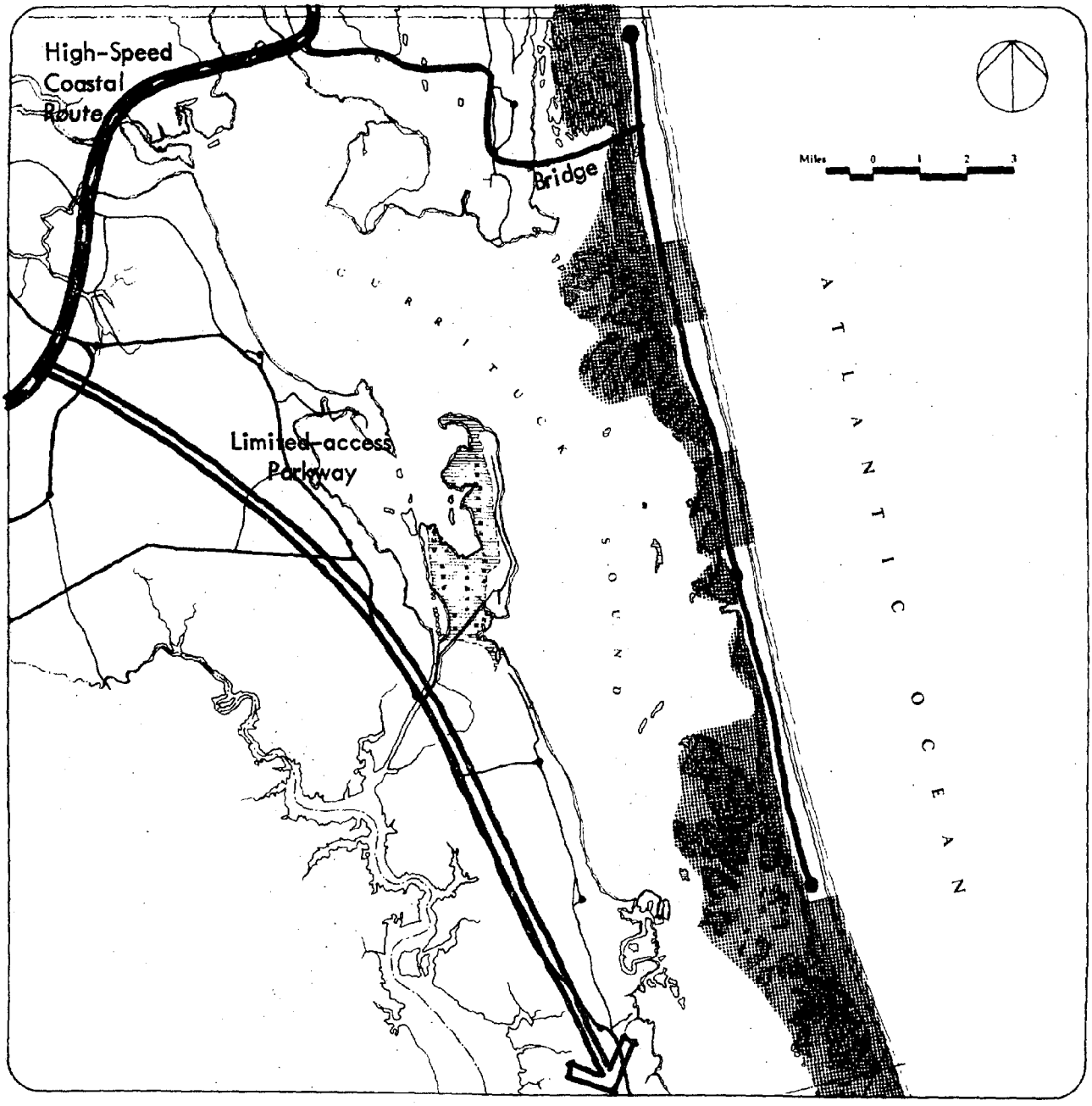


NORTH BRIDGE ACCESS-SOUTH FERRY ACCESS

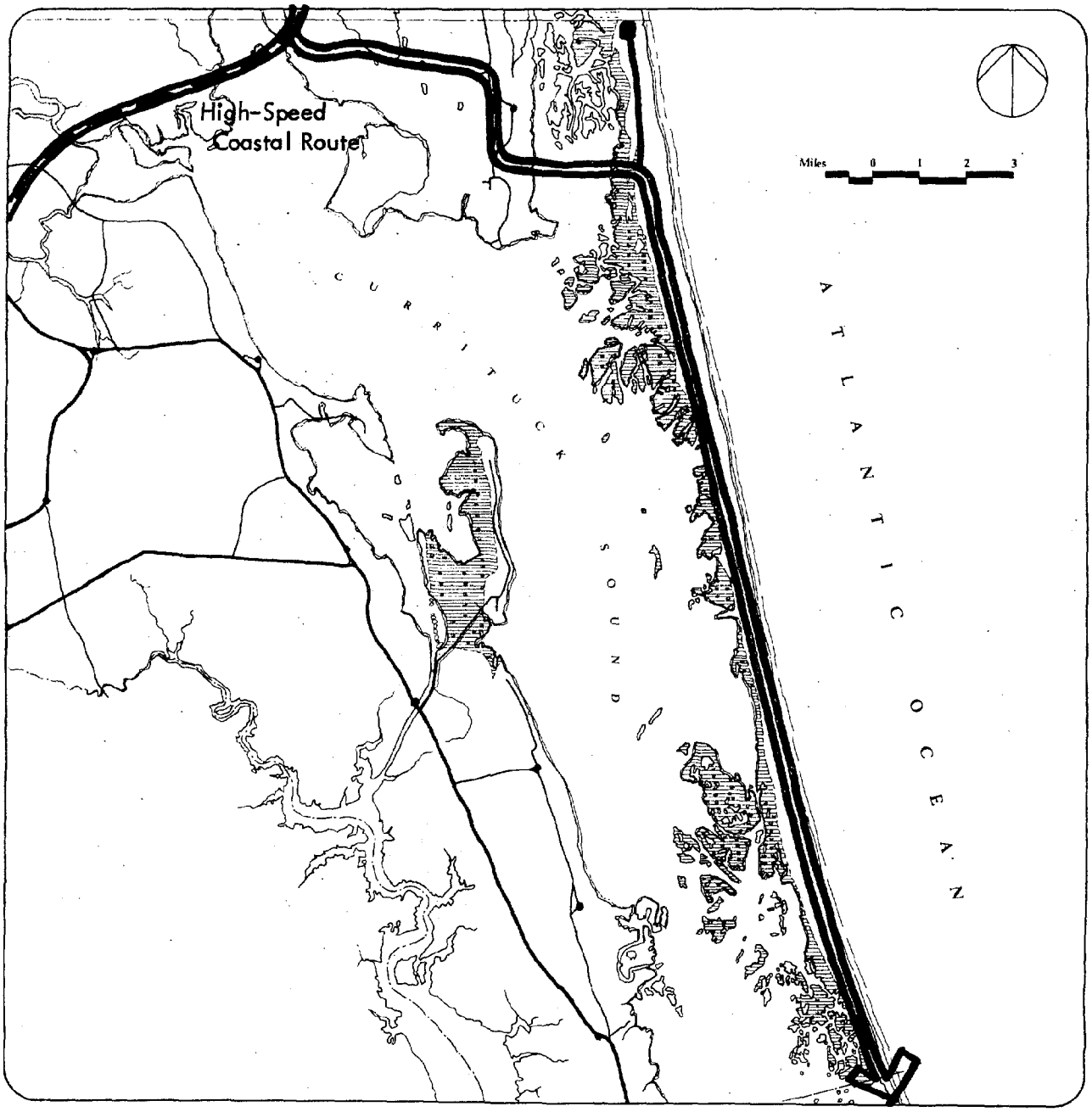
Serving separate North and South development areas on the Outer Banks



NORTH BRIDGE ACCESS - SOUTH LAND ACCESS Serving separate North and South development areas. North access from Knotts Island by bridge; South access from Nags Head through Duck by land.



NORTHERN BRIDGE ACCESS Serving entire developed area of Currituck Outer Banks, but without giving a complete through-traffic route

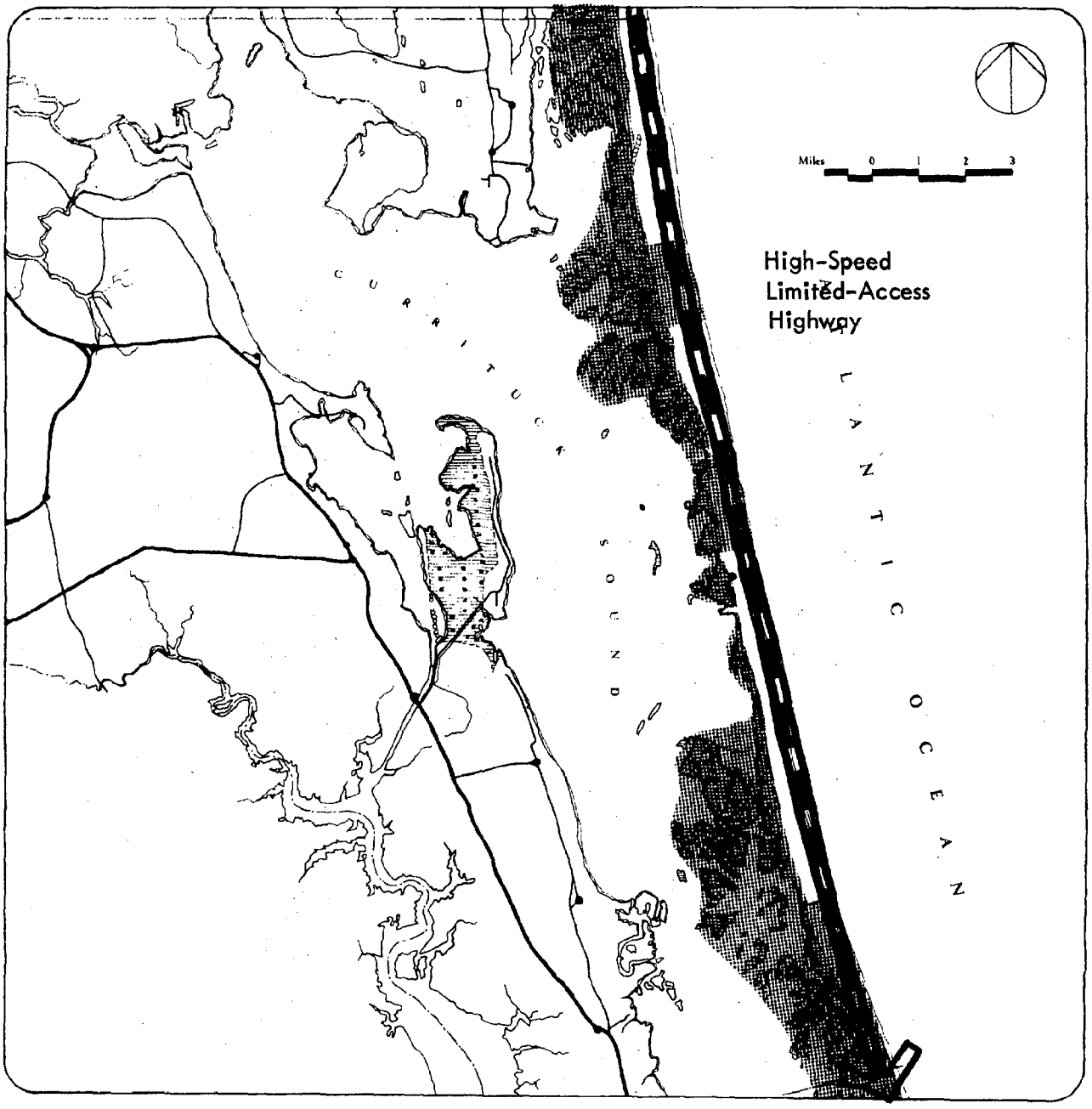


OUTER BANKS THROUGH ROUTE

*Limited access parkway on Outer Banks through to Hatteras and beyond

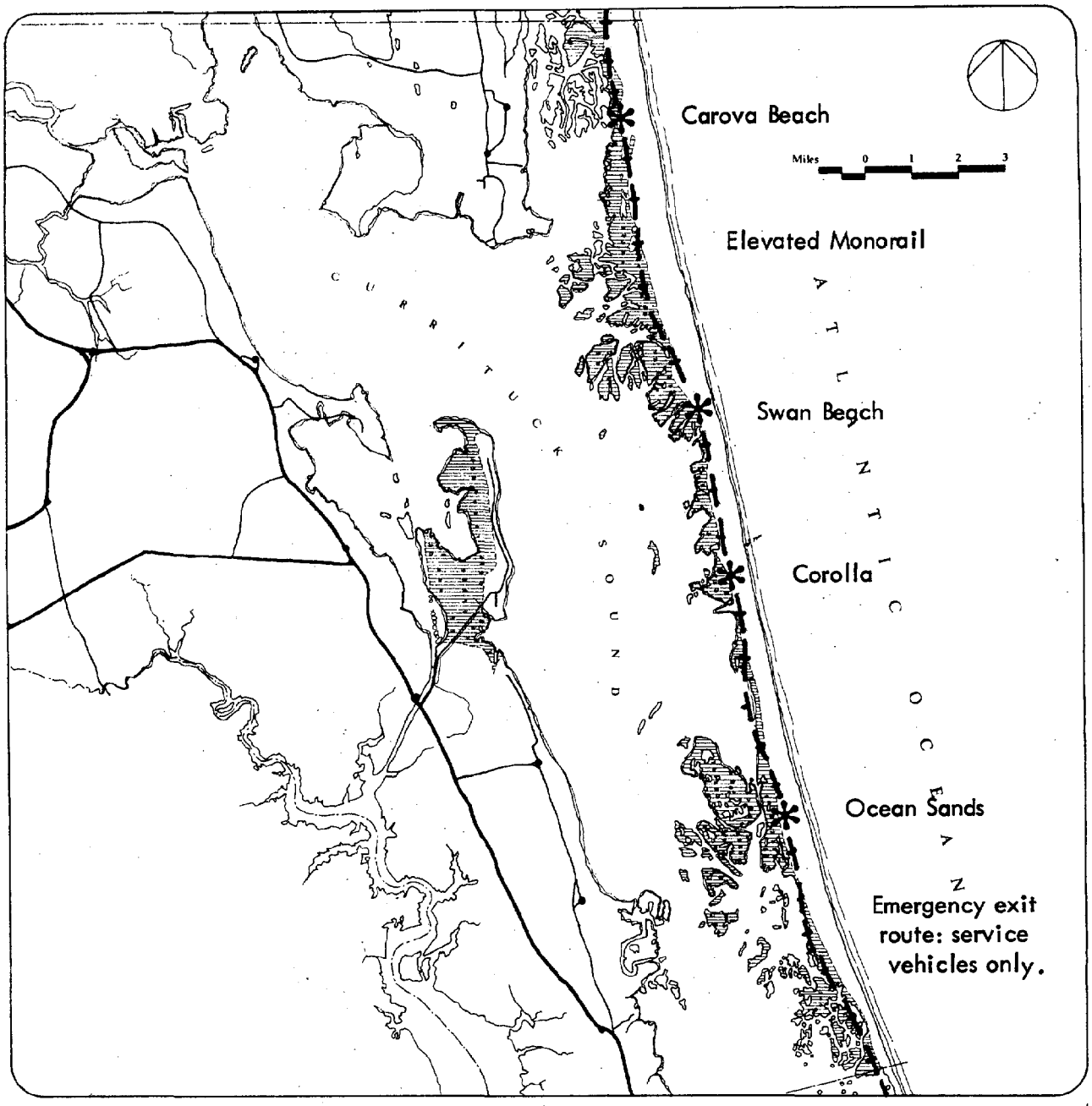
*Reduces county through traffic

*Heavy traffic flow on Currituck Outer Banks



SHORELINE EXPRESSWAY

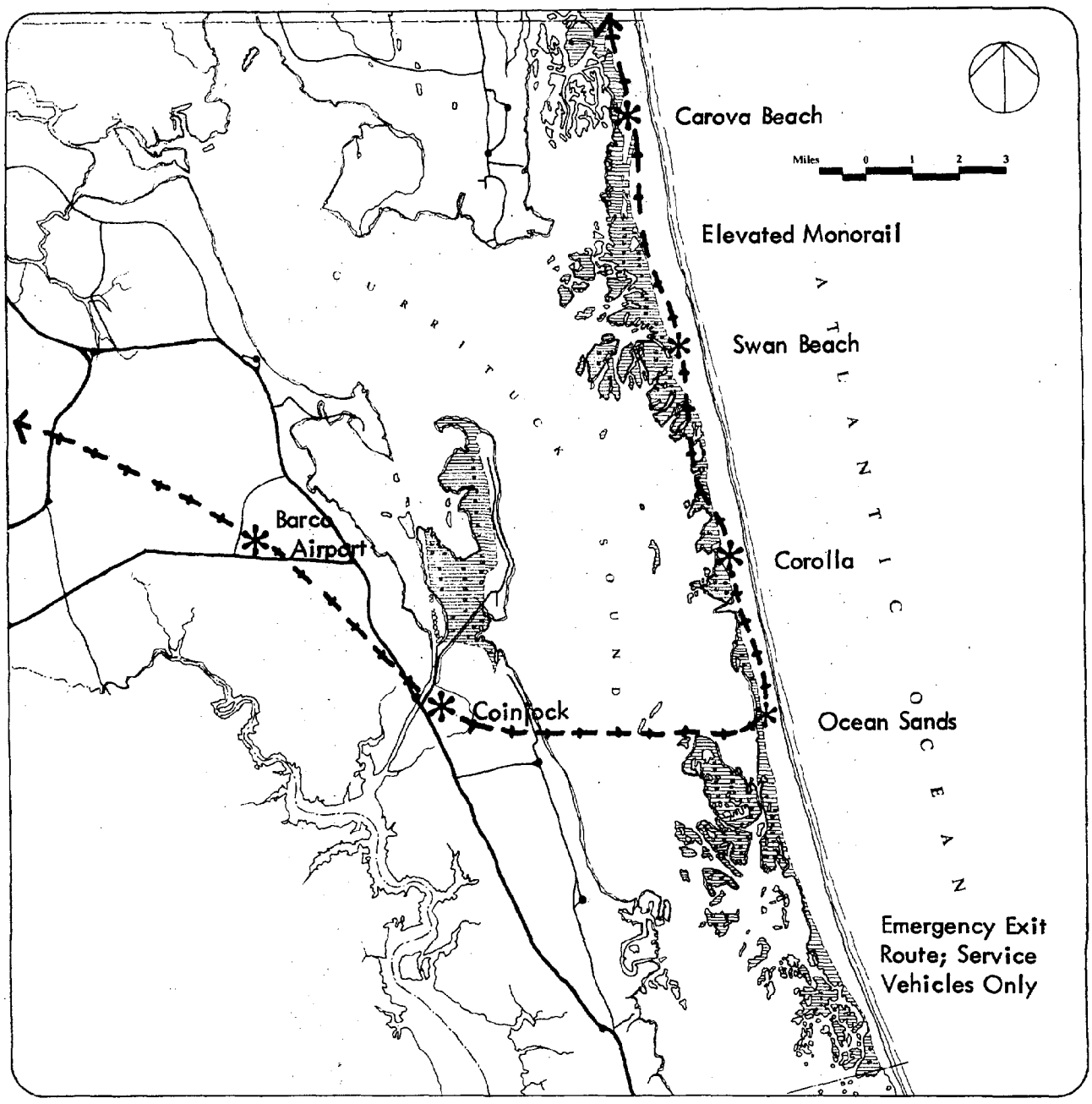
Major North-South coastal highway; reduces through traffic in county mainland.



ELEVATED MONORAIL: SHORELINE THROUGH ROUTE

Low environmental impact transit system.

Secondary transportation at station points:
Electric mini-bus
Golf carts
Mopeds
Bicycles



ELEVATED MONORAIL: BACK BAY - CURRITUCK LOOP

Low Environmental Impact Transit System

Secondary Transportation at Station Points :

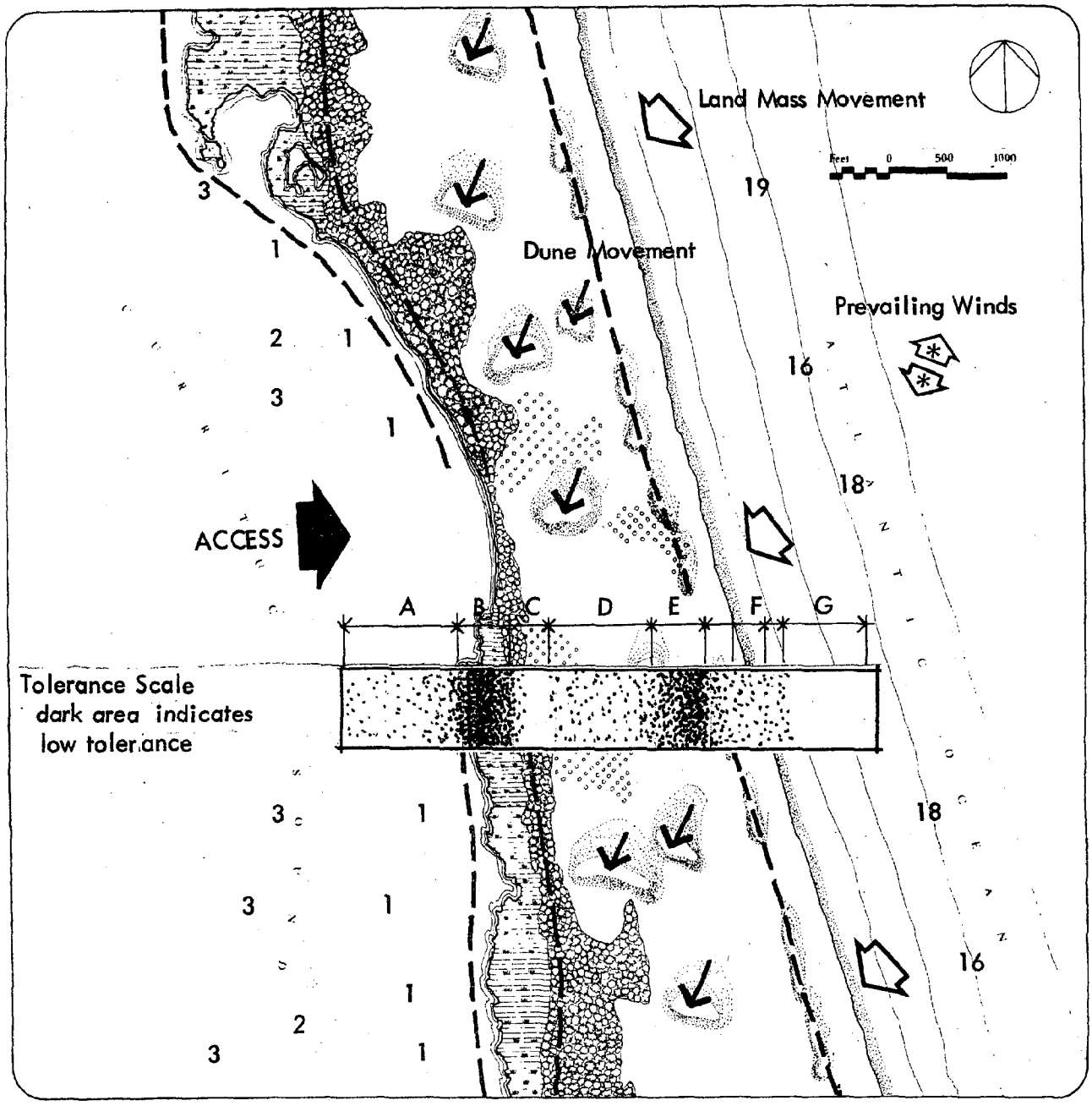
- Electric mini-bus
- Golf carts
- Mo-peds
- Bicycles

On close inspection of the Outer Banks, one has to consider the natural phenomena that developed and allowed this area to survive for some 6,000 years. It is our objective to define certain physiographic features of this area in order to develop conceptual models for development.

In two phases we are examining the land mass movement patterns, wind and water action, and natural foliage of the Outer Banks,and trying to understand the natural constraints of this area.

Next we develop four planning models that have relatively low impact on the existing area. The first deals with different density areas along a major circulation spine and considers the established physiographic principles previously stated. Our next model is developed off a major north-south circulation corridor, once again considering certain physiographic parameters. While the third and fourth concepts also consider these parameters, each contrasts the other in one major area. The third concept deals with a linear density node off a limited access circulation corridor, while the fourth replaces this corridor with a mass transit system.

OUTER BANKS



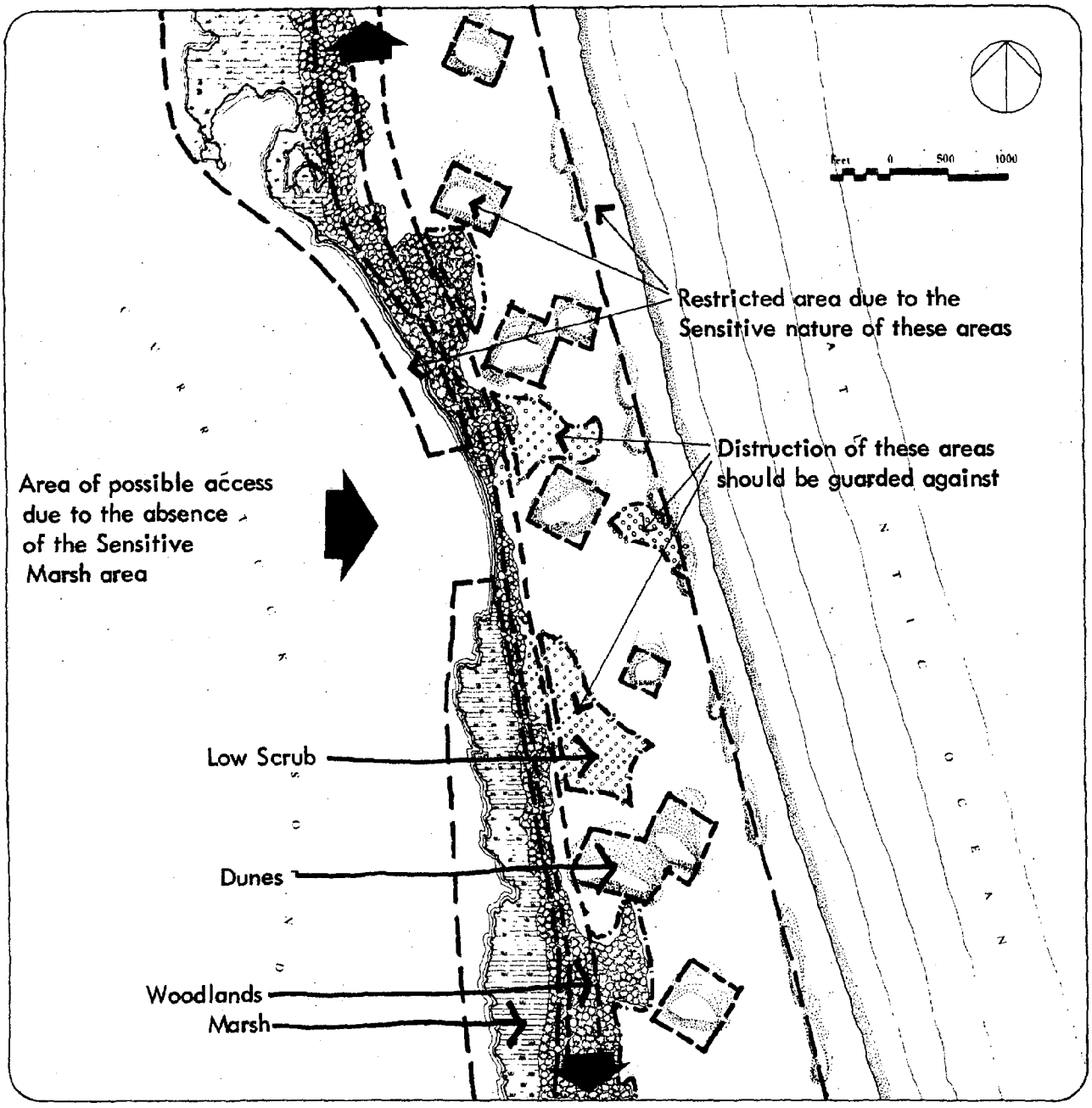
TOLERANCE OF PHYSIOGRAPHIC FEATURES TO MAN'S INFLUENCE

AREA	TOLERANCE	IMPLICATIONS
A. Sound	Medium	Possible Usage *
B. Marsh	Low	Need for Preservation
C. Woodlands	High	Usage Good
D. Secondary Dunes/Mid-Region	Medium	Usage with Restriction
E. Foredune Area	Low	Need for Preservation
F. Beach	Medium	Light Usage **
G. Ocean	High	Possible Usage *

* Floatation structures and transportation areas

** Non-Permanent structures

Note: Numbers indicate water depth in feet

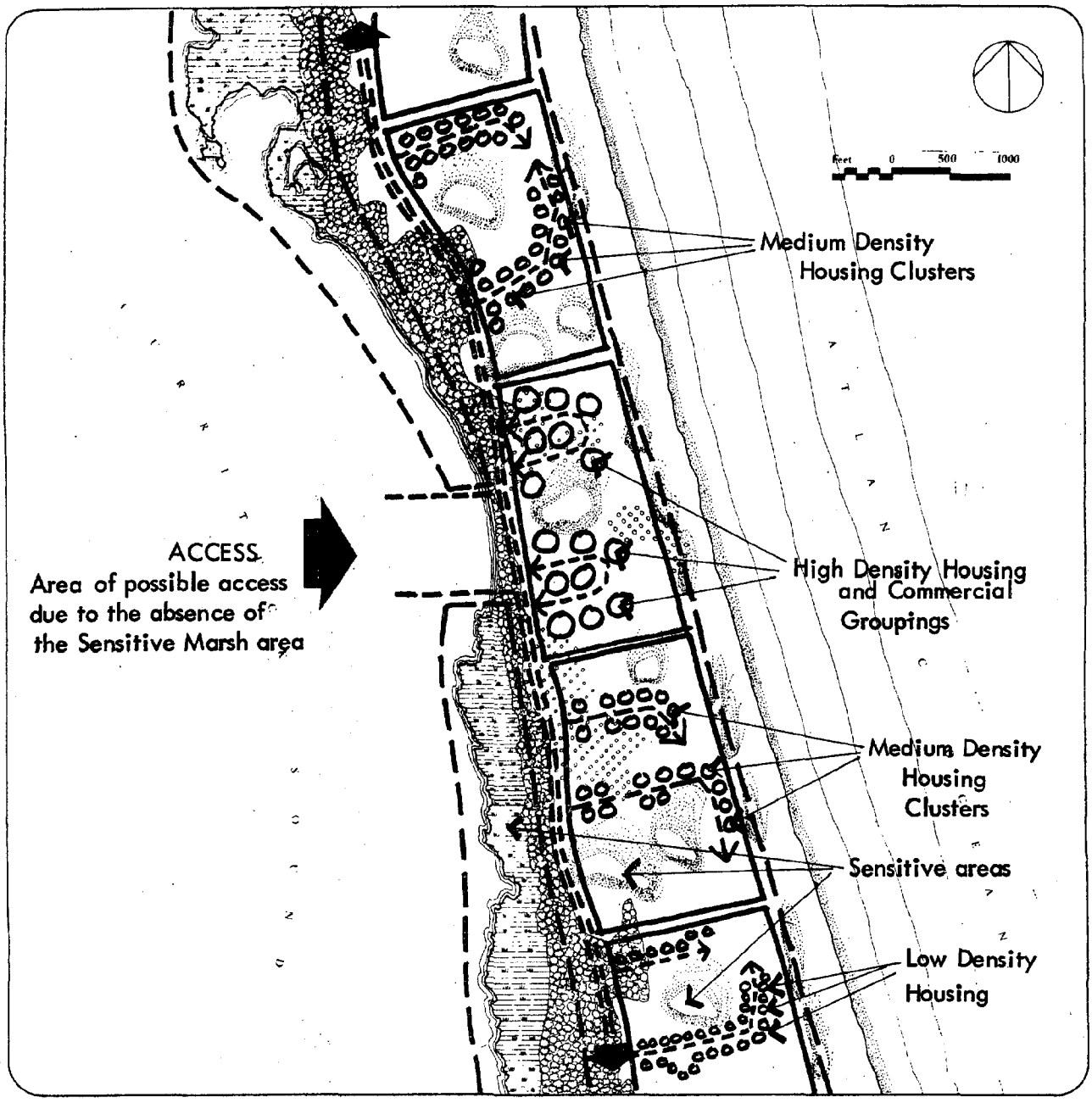


PHYSIOGRAPHIC PRINCIPLES OF DEVELOPMENT

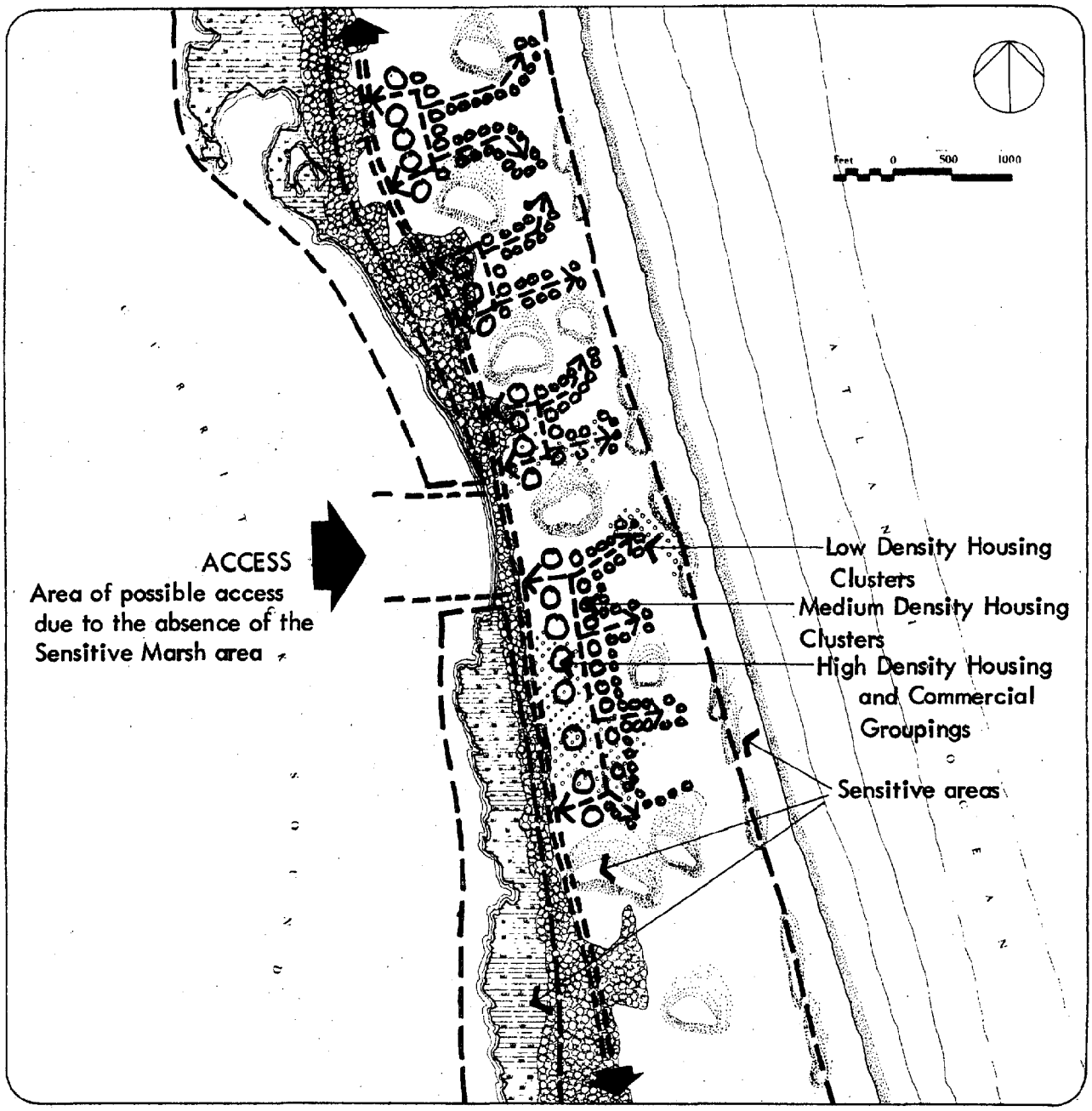
Non-Developable Area

Possible Access Areas

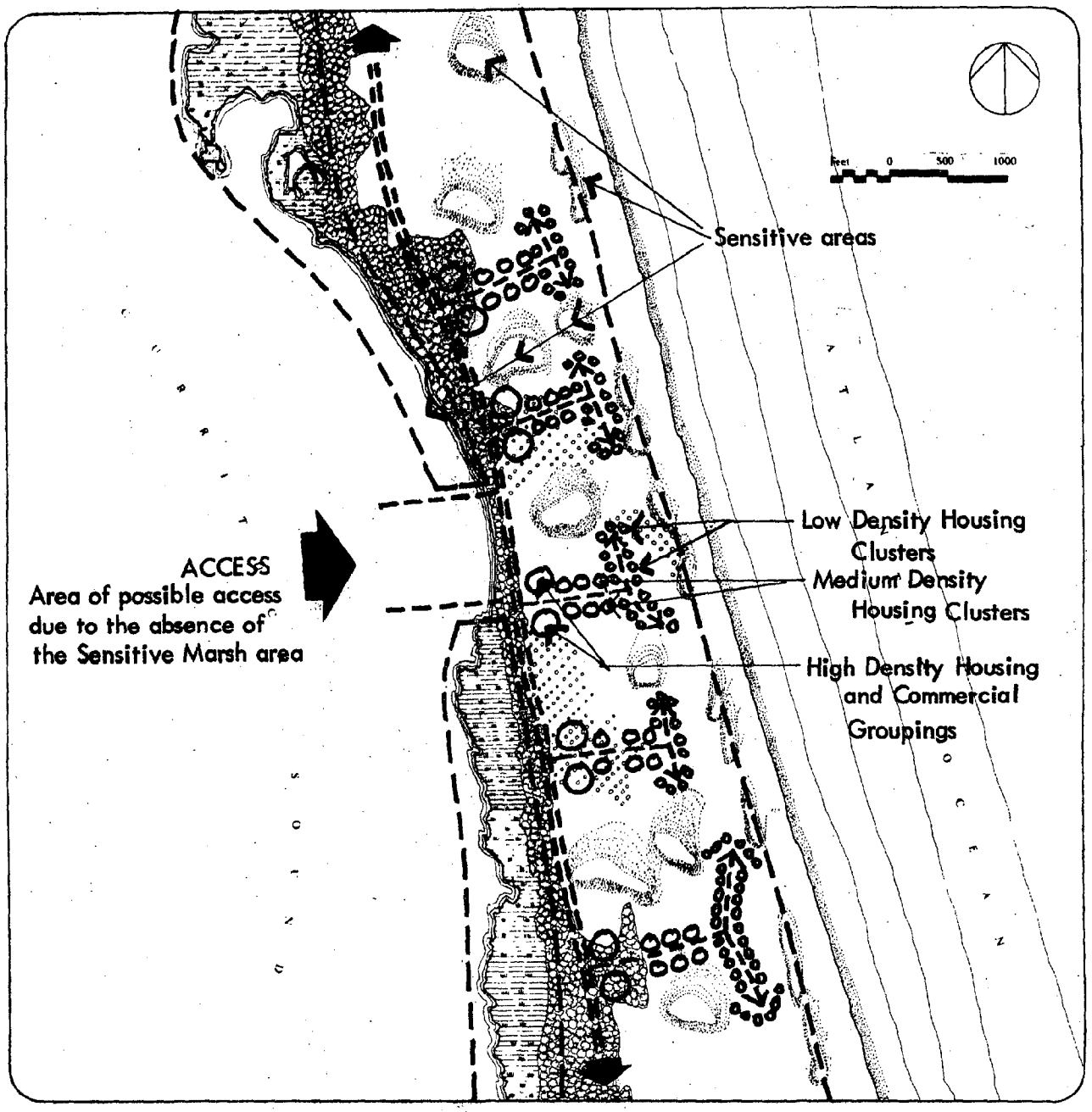
Restricted Buildable Area



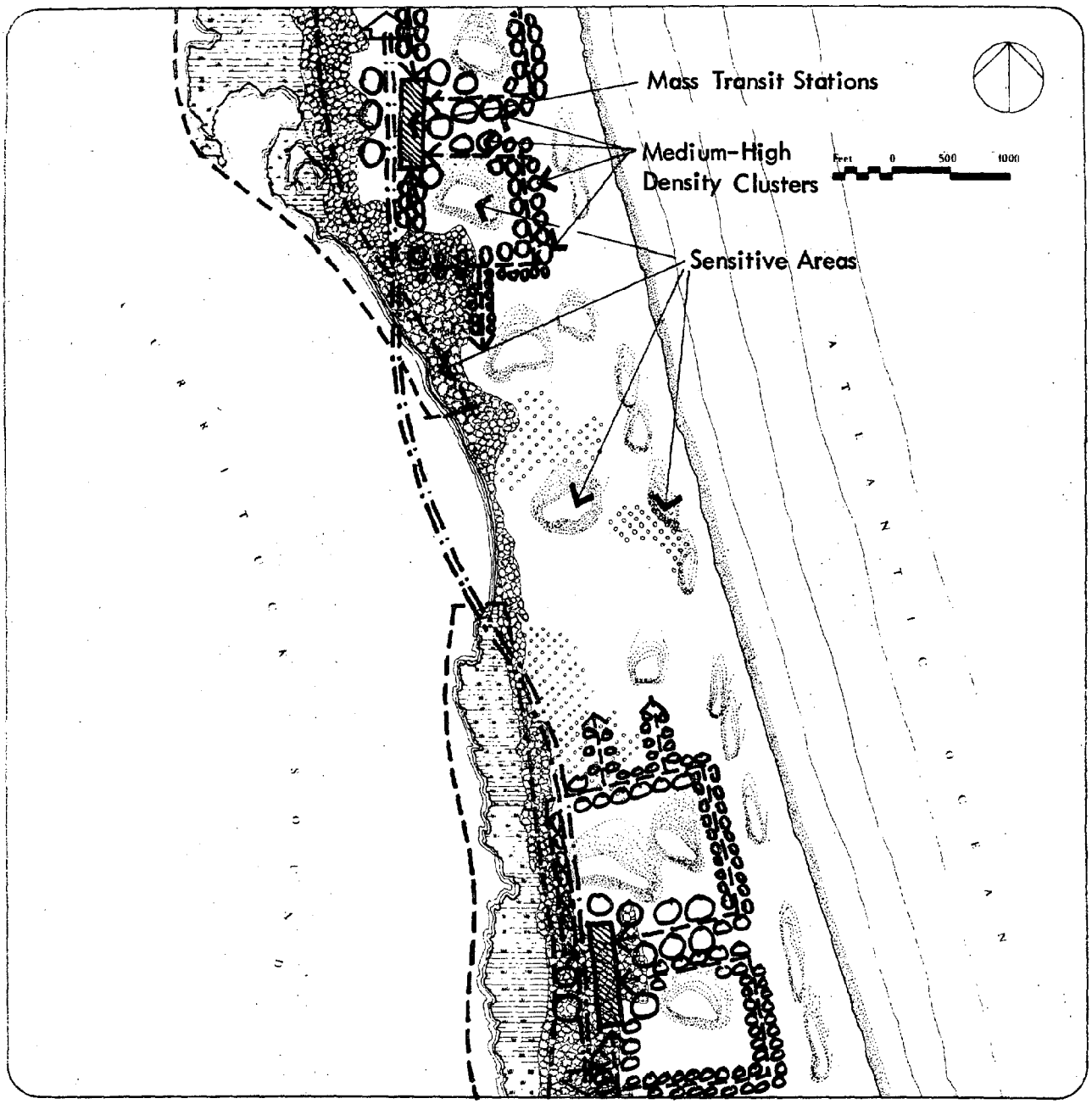
DEVELOPMENT CONCEPT: Linear Development



DEVELOPMENT CONCEPT: Node Development



DEVELOPMENT CONCEPT: Linear Density Node Development



DEVELOPMENT CONCEPT: Village Concept

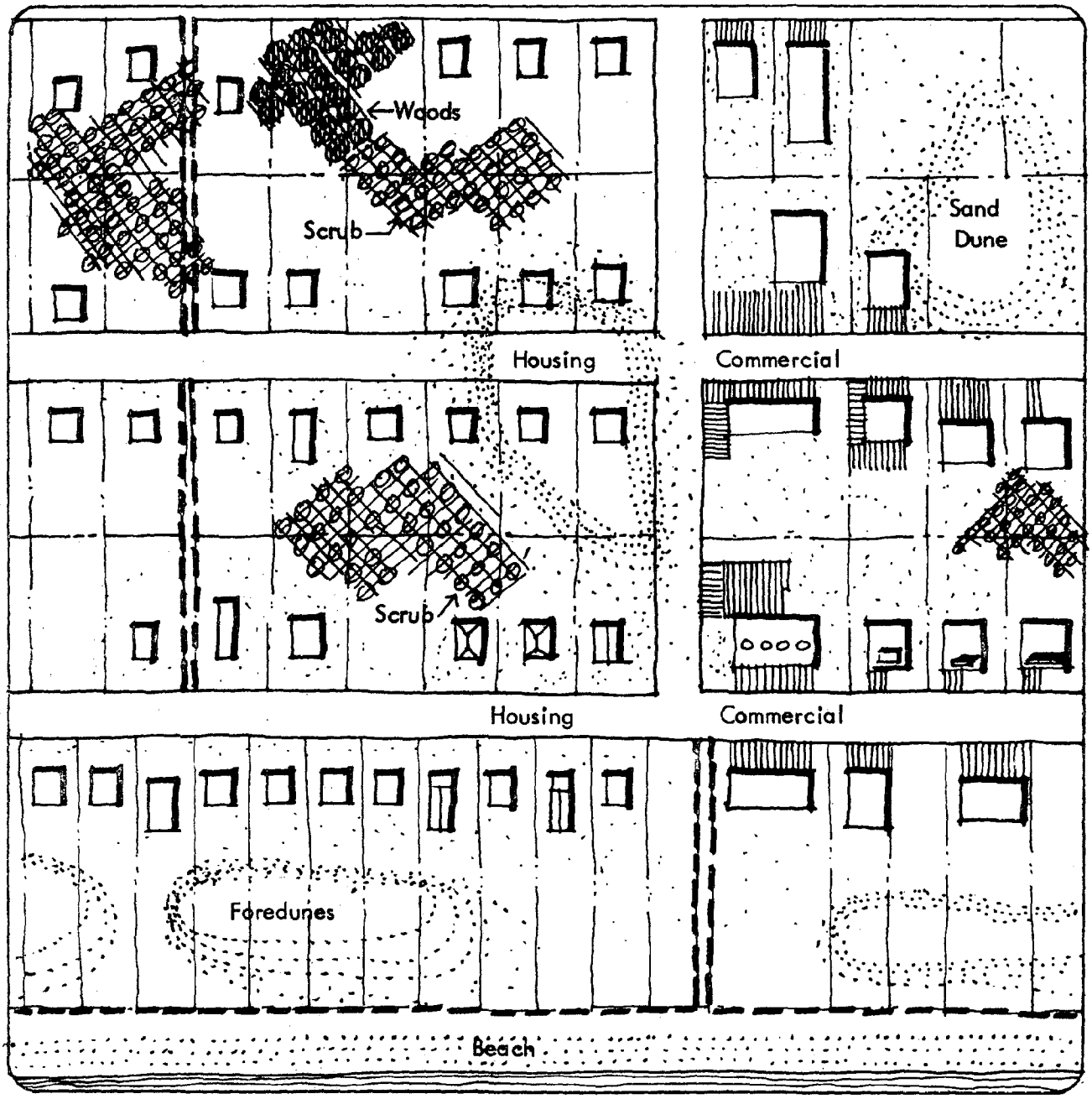
Mass Transportation
High Density Commercial/Residential Areas
Medium Density Areas
Low Density Areas

Secondary Transportation

Progressing from the conceptual planning stage, we examine three prototypical development clusters, and density alternatives for each.

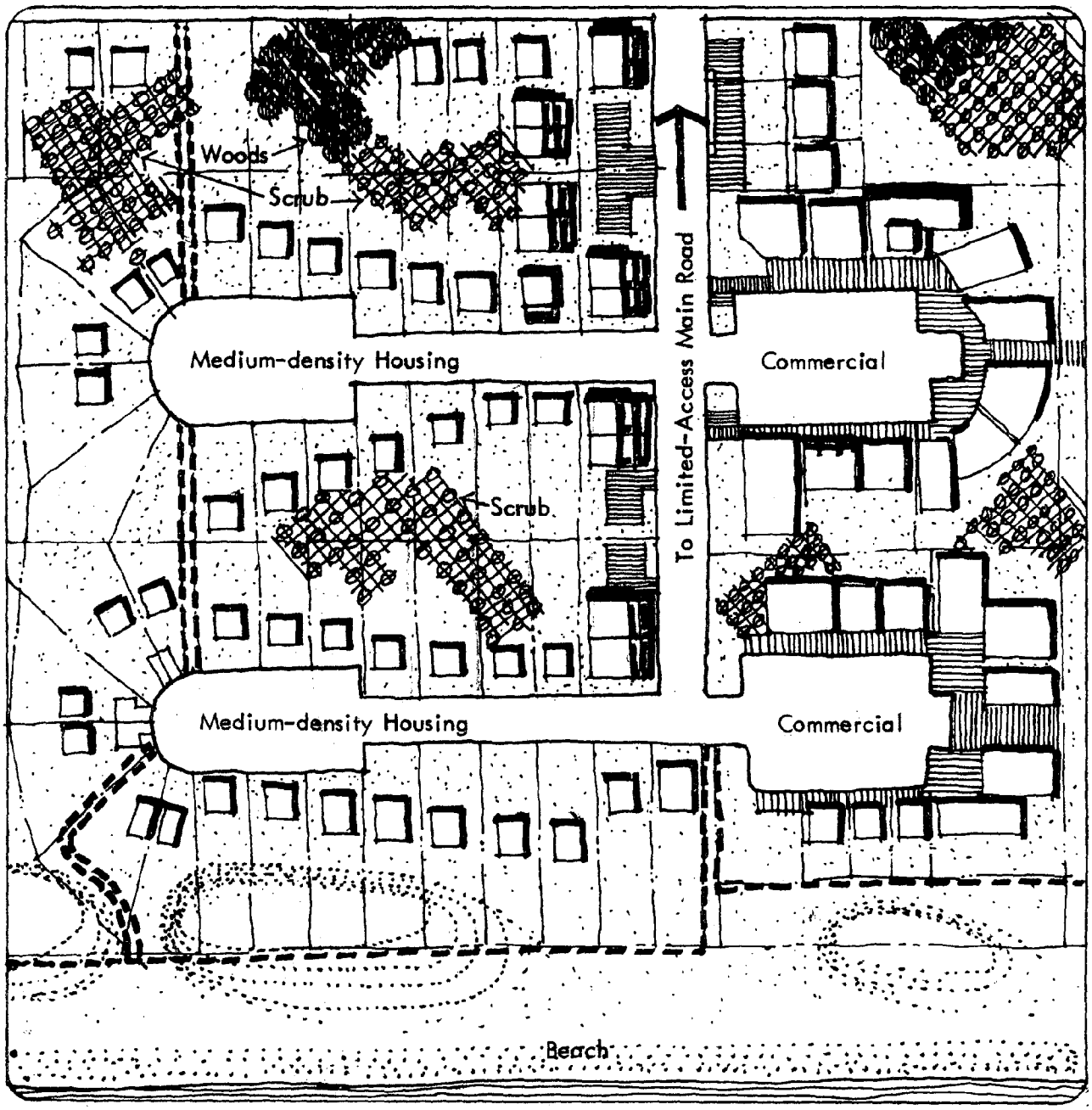
In the process of consideringphysiographic features, we illustrate principles of site planning that increase densities while leaving large areas of open space for public use or natural processes, decrease secondary traffic and utility patterns, and increase the aesthetic opprotunities of the individual structure and the development clusters.

PROTOTYPICAL SITE



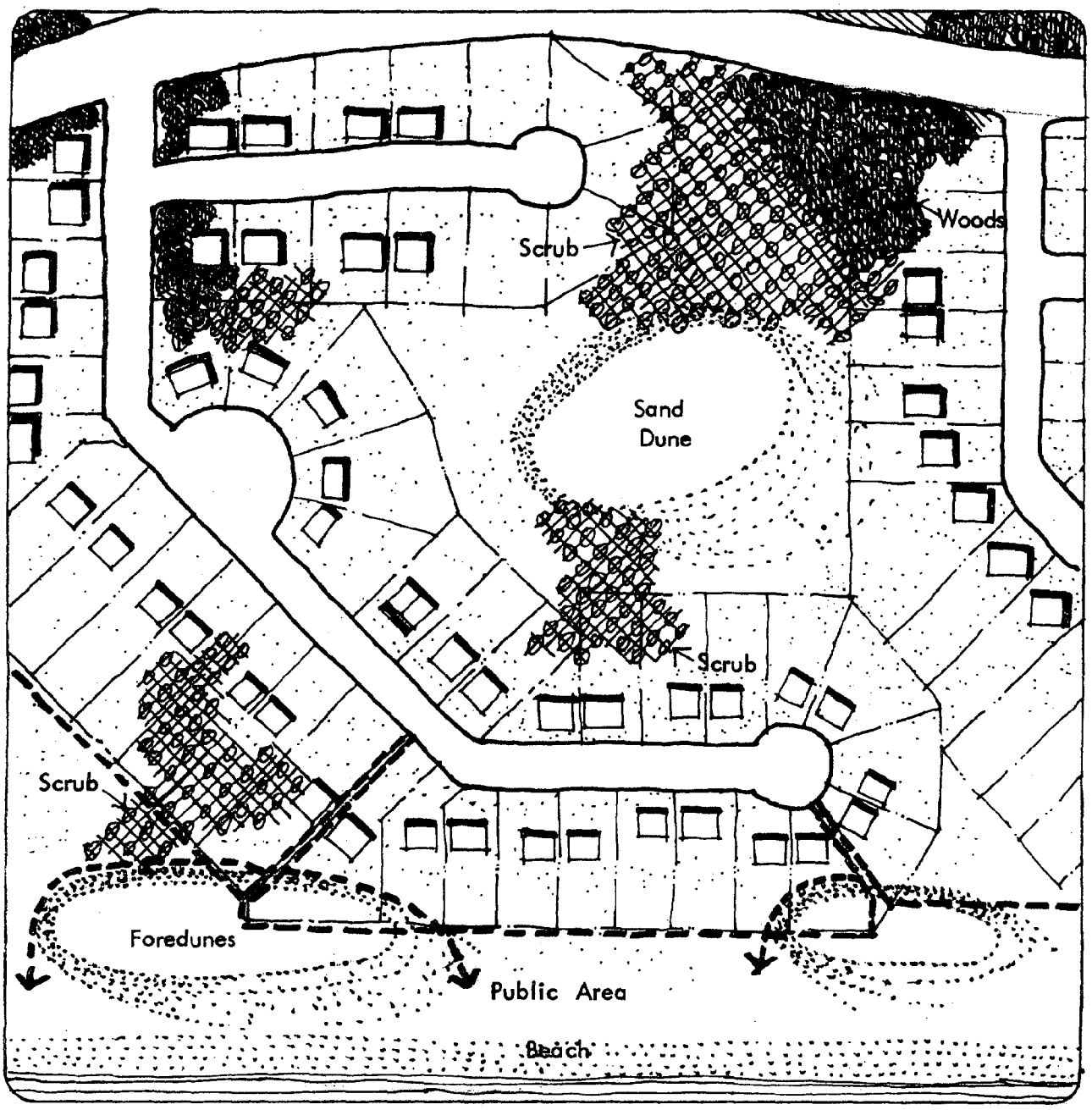
DEVELOPMENT SCHEME 1

Traditional grid-type development scheme illustrating uncontrolled commercial developmental patterns; Note inability of scheme to respect existing physiographic features of this area



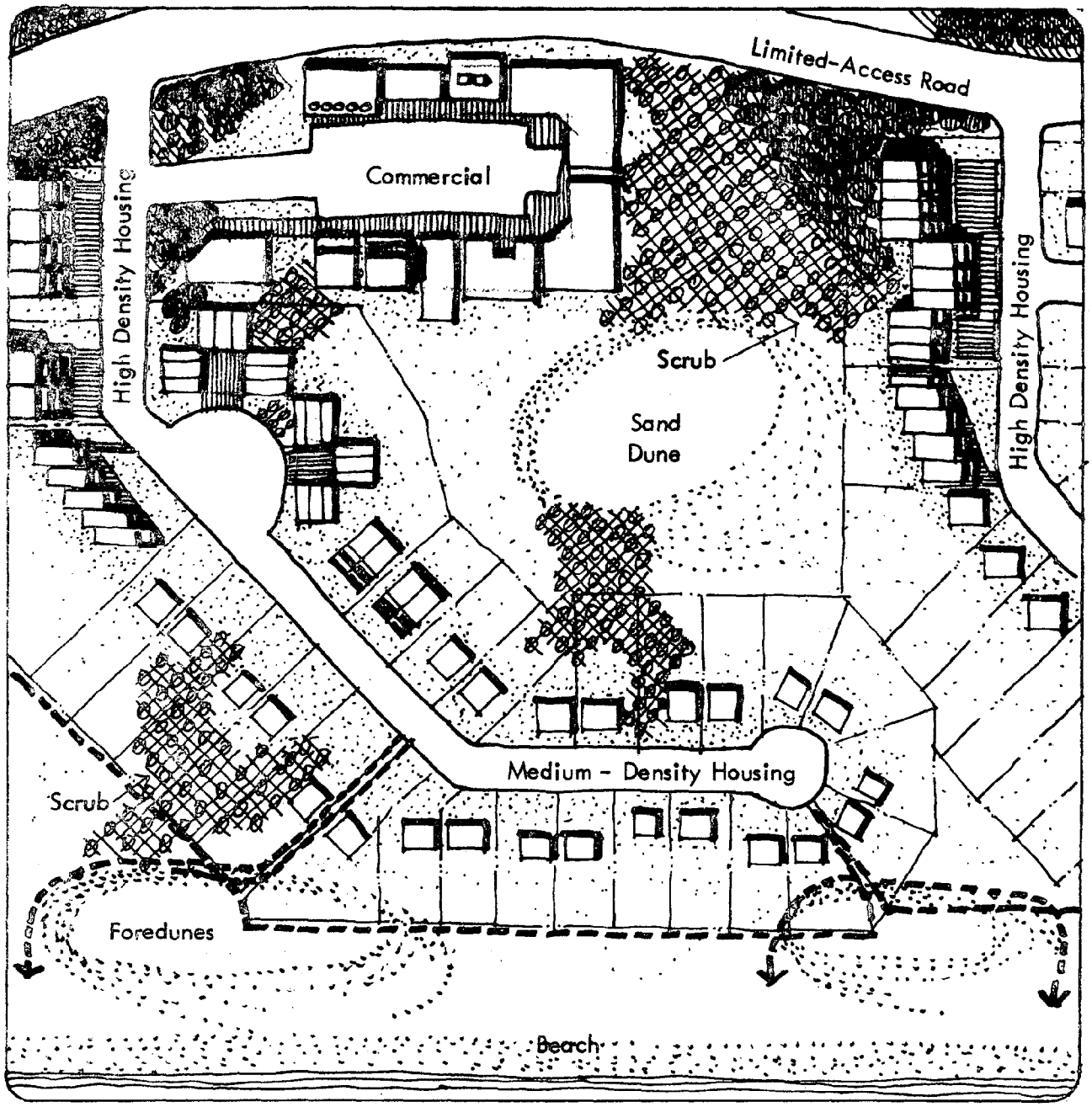
DEVELOPMENT SCHEME 1a

Variation on Development Scheme 1
Showing addition of high density housing, commercial residential, and commercial structures, in addition to limiting concentrated vehicular traffic to the more stable region towards the woodlands on the Outer Banks



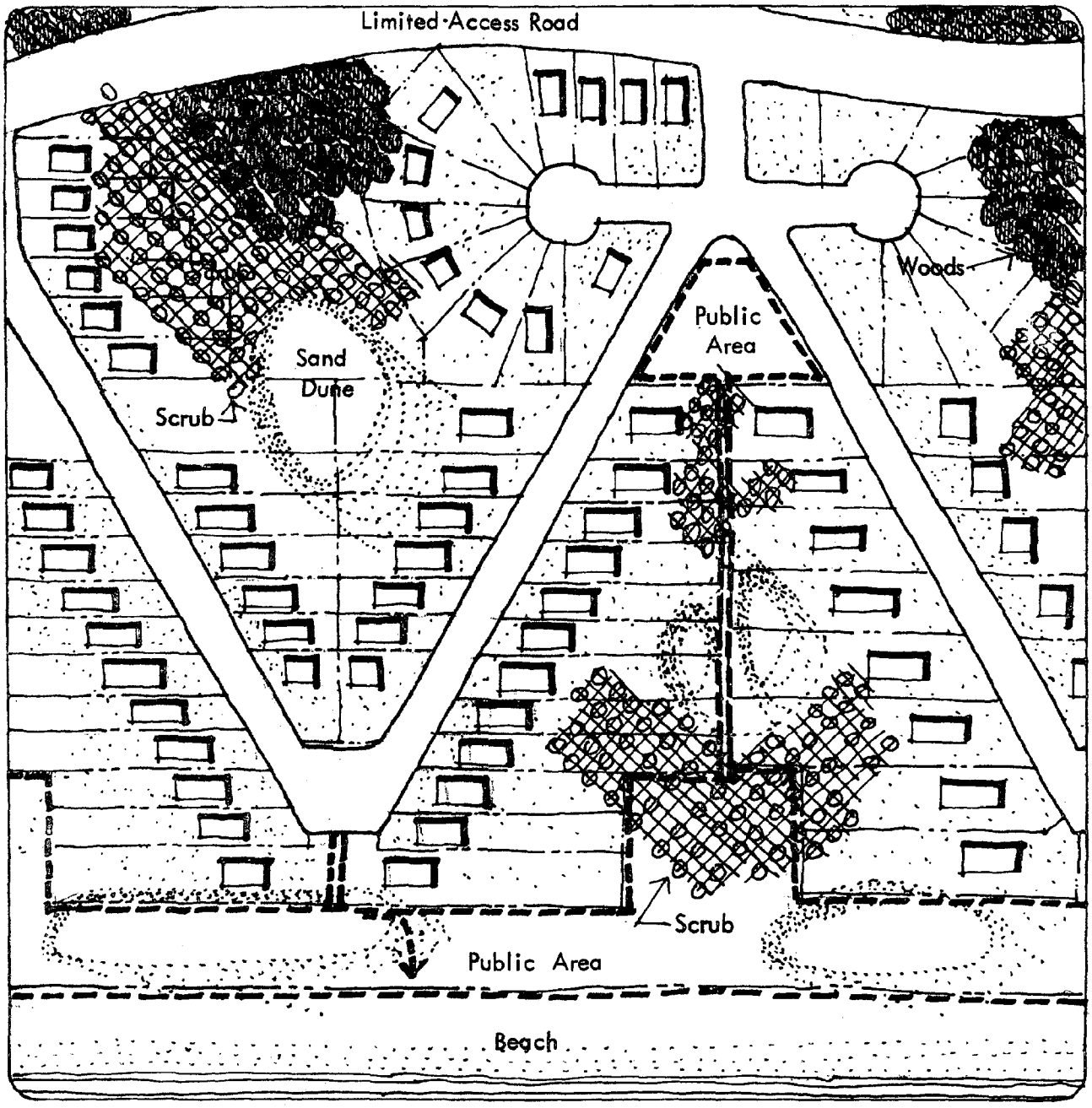
DEVELOPMENT SCHEME 2

Modified cul-de-sac scheme that has built-in capability for response to the physiographic features of the Outer Banks area, in addition to limiting concentrated vehicular traffic to the more stable region toward the woodlands on the Outer Banks



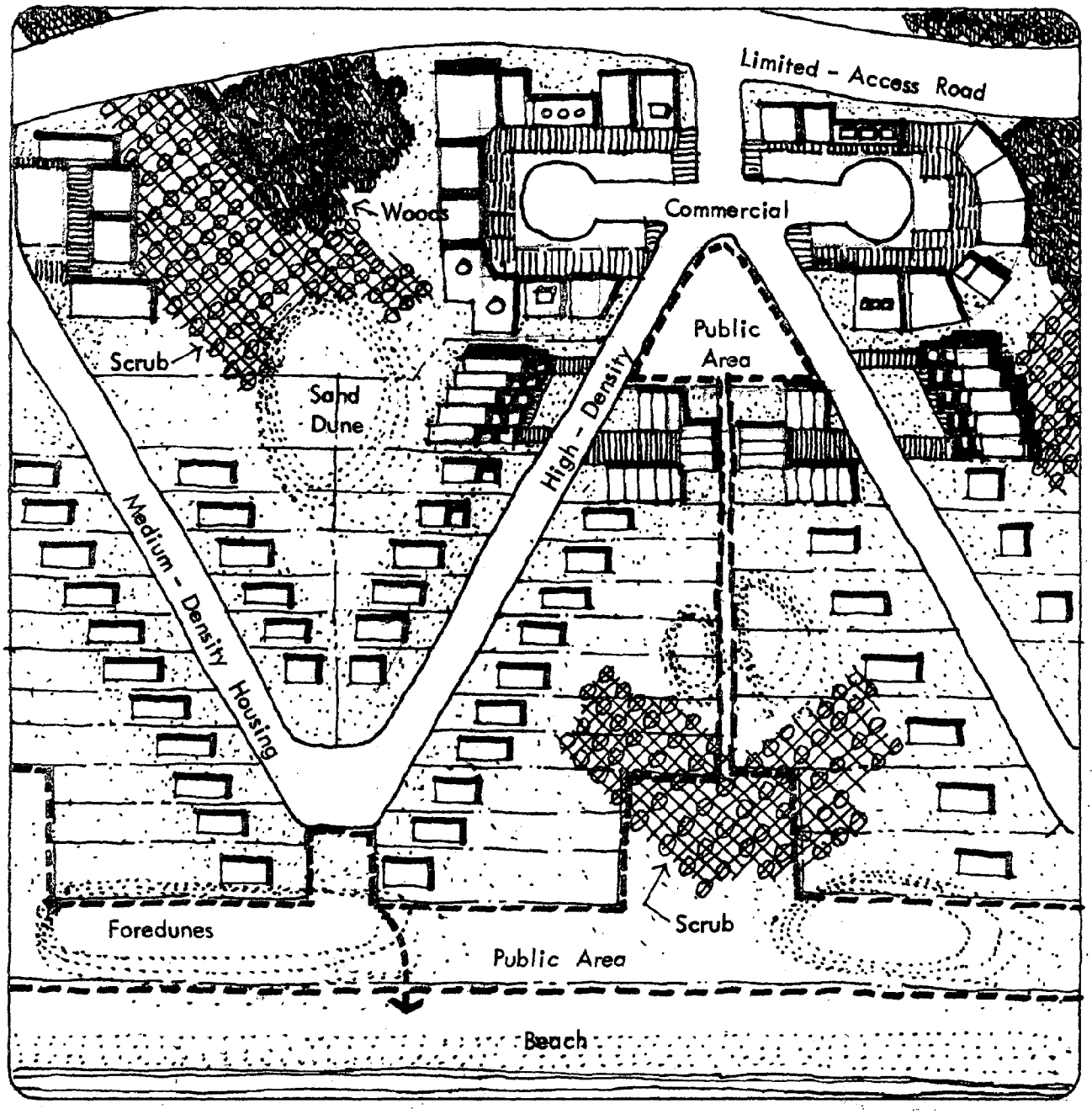
DEVELOPMENT SCHEME 2a

Variation on Development Scheme 2
Showing addition of high density housing, commercial residential and commercial structures, in addition to limiting concentrated vehicular traffic to the more stable region towards the woodlands on the Outer Banks



DEVELOPMENT SCHEME 3

A modified cul-de-sac scheme with inter-linked transportation areas showing possibilities of increased densities with the abilitiy to give residential units ocean orientation



DEVELOPMENT SCHEME 3a

Variation on Development Scheme 3
Showing addition of high density housing, commercial residential and commercial structures, in addition to limiting concentrated vehicular traffic to the more stable region towards the woodlands on the Outer Banks

APPENDIX

COMPONENTS OF PLANNING STUDY

The Currituck Plan is to be a demonstration of the effectiveness of governmental, institutional and professional interdisciplinary cooperation. The following outline deals with the separate functions and responsibilities of the principle consultants, university experise, professional consultants, and governmental agencies linked together by this project.

PRINCIPAL CONSULTANTS

PROJECT MANAGEMENT - (August 1972 - January 1973)

The principal consultants constitute the management structure for the project. Their role is to develop the program, produce intermediate reports, solicit and coordinate the work of other professionals and agencies and execute the work authorized by the three-man Currituck Plan Committee on June 30, 1972.

LAND DEVELOPMENT - (August 1972 - January 1973)

This aspect of the principle consultants generates the criteria and principles to be used as developmental standards by the county. Insofar as time and resources permit, the principal consultants shall engage in a series of prototype developmental studies for the Outer Banks and other coastal lands which show desirable layouts for both large and small sites. The purpose of such prototypes is to demostrate the many different kinds of land use and planning controls which can effectively optimize the developmental criteria established in Phase I of the Currituck Plan.

ACCESS (August 1972 - January 1973)

Drawing from existing data provided by the State Highway Commission, and from contemporary transportation planning technology, the principle consultants shall explore alternative means of access to coastal areas utilizing currently available movement systems. The consultants will construct several growth model for the county based on alternative projections for the future. These models are to be evaluated in terms of the goals and objective established during the first phase of the planning study -- "Outer Banks Development Situation". The plan which optimizes these goals and objectives will subsequently be used to create a comprehensive planning and land use control guidelines for the County Planning Board.

ECOLOGICAL SYSTEMS ANALYSIS - (September 1972 - December 1972)

Drawing upon specialists from North Carolina State University, the principle consultants shall also prepare a plan for the conservation of the natural resources of the county. A University-based research team shall gather the expertise from as many fields as necessary to accomplish this task and is expected to involve faculty in several universities and expertise within the state government. The principle elements of the plan will be as follows:

1. Inventory of ecosystems
2. Description of natural processes
3. Identification and specification of factors limiting development for any purpose, including the specification of measureable criteria for that purpose.
4. Determine of relative levels of acceptability of change for land in Currituck based on item (3) above and
5. The preparation of a plan incorporating elements (I) and (4) above.
6. Preparation of a system for allowing county officials to measure the ecological impact of proposed developments.

ECONOMIC SYSTEMS ANALYSIS (September 1972 - December 1972)

An economic consultant will be utilized to furnish the principal consultants with information relative to the economic impact of development in Currituck County. Specifically his tasks shall include the following items:

1. Analysis of coastal development trends including costs to both the developer and the public of residential, recreational and other uses.
2. Estimate of the impact of alternative plans prepared by the principal consultants on the revenue structure of the county .
3. Projection, trends, and other socio-economic information required by the principle consultants in the preparation of their alternative growth models.
4. Economic analysis of developmental prototypes supplied by the principal consultant.
5. Measurable criteria for allowing county officials to estimate the impact of proposed developments.

ENGINEERING SYSTEMS ANALYSIS (September 1972 - December 1972)

This section of the planning study is concerned with the analysis of the impact of development upon the various engineering systems in the county. A consultant shall be utilized to provide the following kinds of information:

1. Criteria for specifying developmental limits based upon septic tank and small fresh water wells.

2. Costs of water, sewer, drainage, roads systems, and other engineering services for a range of developmental prototypes supplied by the principal consultant.

3. Estimate of the public costs associated with engineering systems for the alternative growth models developed by the principal consultants.

4. A system for allowing county officals to make economic judgements about the impact of planned developments.

ROLE OF THE STATE GOVERNMENT. In a planning study of this kind most of the date must be

obtained from a varity sources outside the consultants' normal sphere of operation. The principle consultants therefore request the aid of the state government in the collection of the following data

Inventory of Information to be Compiled for Currituck Plan

A. Natural Resources (Ecosystems Inventory)

1. Physiographic data, general
2. Soils Data (relevant to suitablity for development) and untreated sewage capacity.
3. Topographic data, especially on Outer Banks
4. Woodlands and vegetation mappings (relevant to soils, hydrological data)
5. Surface water system
6. Tidal flows, currents in Sound and estuarines regions
7. Aquifer data
8. All other hydrological data including dissolved oxygen, dissolved nutrients, salinity, biological oxygen demand levels, etc.
9. Wildife refuge areas, and mappings of animals and marine life.
10. Commercial fishing and shellfish zones
11. Sports fishing information
12. Concentrations of surface or sub-surface minerals of commerical value
13. Recreation areas, public parks, special zones for preservation or other forms of restricted use.
14. Agricultural land use data
15. Data on sedimentation, erosion, water and air pollution (if any)
16. Evaluative criteria utilized to determine levels of the characteristics listed above in terms of their removal or deposition, or their impingement on the natural resource system

B. Man Made Resources (Cultural Systems Inventory)

1. SOCIO-ECONOMIC:
    1. Inter census tabulations of households, populations, incomes, properties, race, ethnicity and other data
    2. Population and economic trends
    3. Annual or seasonal variations in county population activity
    4. Tax rates, revenues and expenditures in the public sector
    5. Revenues and expenditures in the private sector according to activity classification (Residential, Commercial, Industrial, Recreational, Institutional etc.)
    6. Vacation home trends, sales
    7. Economic development criteria relative to public facilities, roads, schools, other public expenditures

II. PHYSICAL

Transportation

1. Trip generation, trip distribution, trip origin and destination data in region
2. Modal split data
3. Current and planned road networks and other forms of transportation data
4. Traffic volumes: average daily travel; peak daily travel; peak seasonal travel
5. Public ferry systems capacities, loadings schedules

Land Use

1. Mapping of land use according to urban, rural uses
2. Zoning maps, zoning and subdivision classifications
3. Special legislation restrictive to land use other than zoning and subdivision ordinances

Public Facilities

1. Community facilities data, including schools, colleges, libraries, administrative offices and other facilities by type, size, enrollment, etc.
2. Public recreation areas

Public Works, Engineering Systems

1. Water treatment facilities and distribution systems
2. Sewage treatment facilities and collection systems
3. Solid waste collection and disposal systems.
4. Drainage data
5. Dams , flood control, erosion control and similar public works projects

III. GOVERNMENTAL, ADMINISTRATIVE

1. Identification of Federal agencies, guidelines of signifance relative to coastal planning
2. State agencies with regional and county-level administrative units which affect coastal planning
3. Inter-agency units, committees, task forces studying coastal development and coastal zones resource management
4. Legislation, special bills or commissions related to coastal lands

IV. HISTORIC

1. Historic documents, maps relative to Currituck development
2. Biographical material on important figures in coastal development
3. Historical monument data

V. OTHER INFORMATION

1. Surveys (soil, aerial, etc.)
2. Map coordinate and grid systems in use by state agencies
3. Base map sources

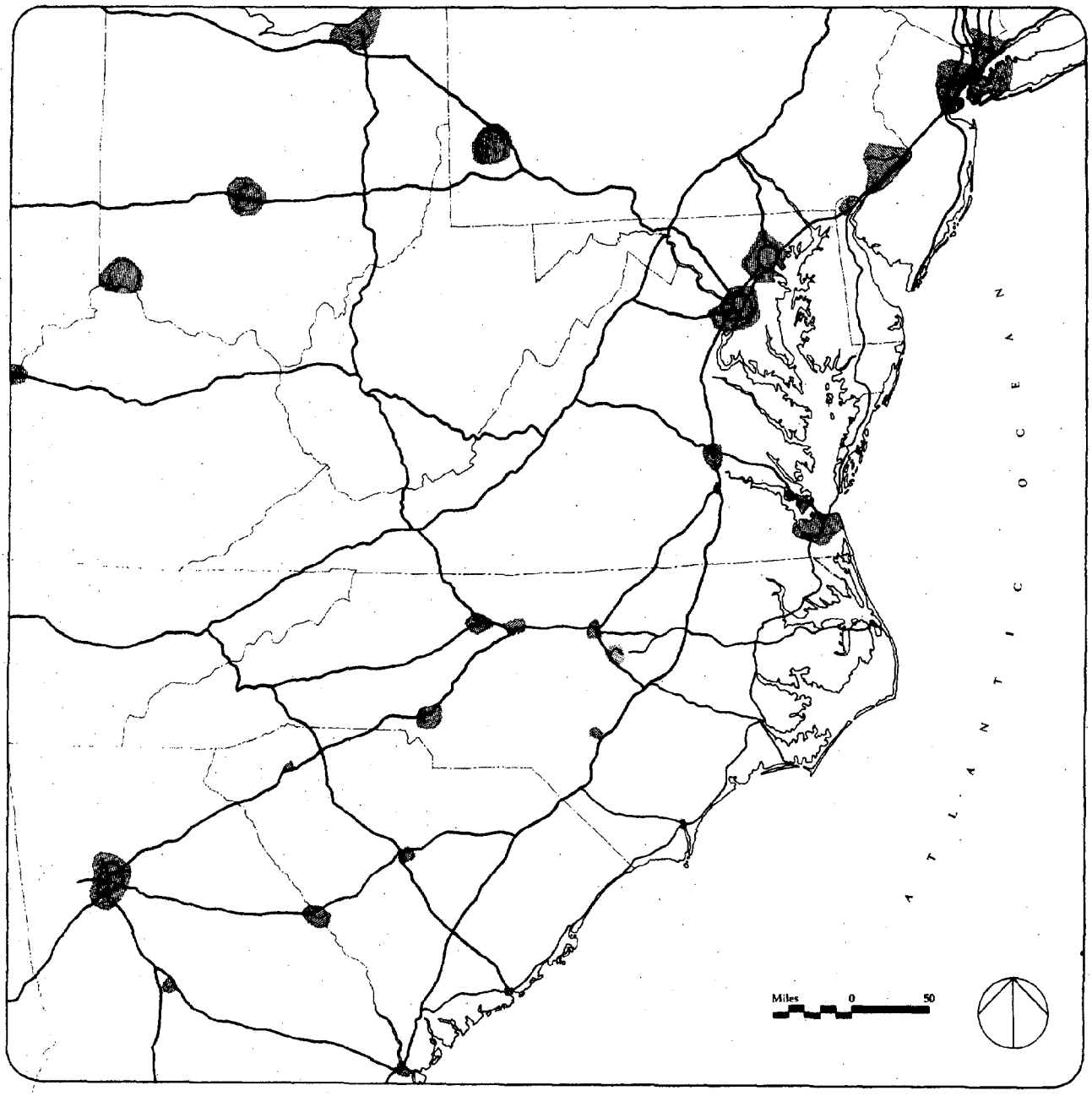
Included in this report are several base maps to be used for your comments or suggestions related to the many constraints and alternatives of development stated in the text of this report.

Due to the varied and voluminous nature of the material covered, it is critical that feed-back play a part in the continuing planning process in order to eliminate or isolate certain proposals for in-depth study and evaluation.

Therefore, a feedback mechanism is essential to the planning sequence and your response shall play an integral role in the development of sound planning concepts for Currituck County.

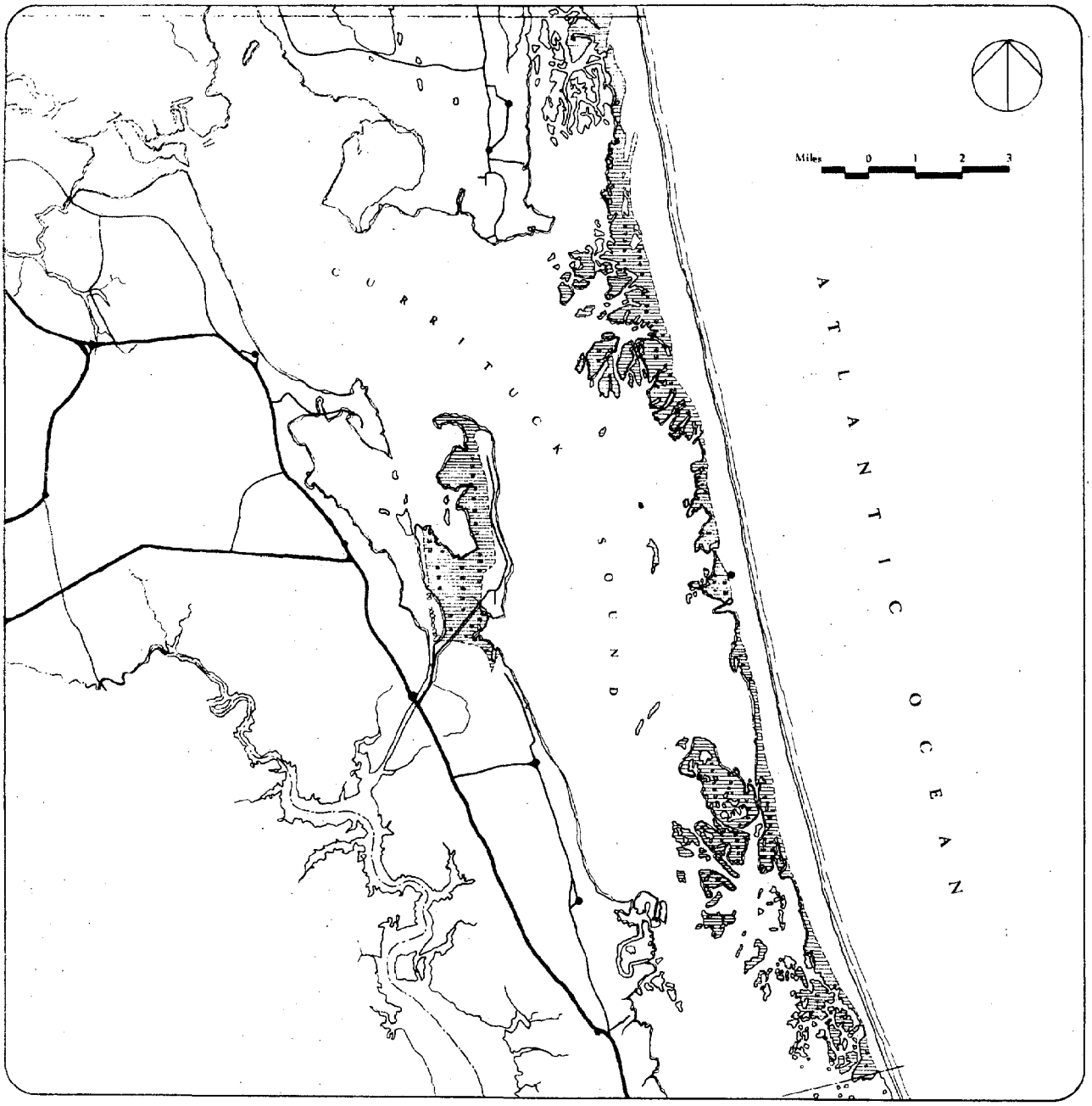
Please address your responses to
THE CURRITUCK PLAN
BOX 8
CURRITUCK , NORTH CAROLINA 27939

SUGGESTIONS

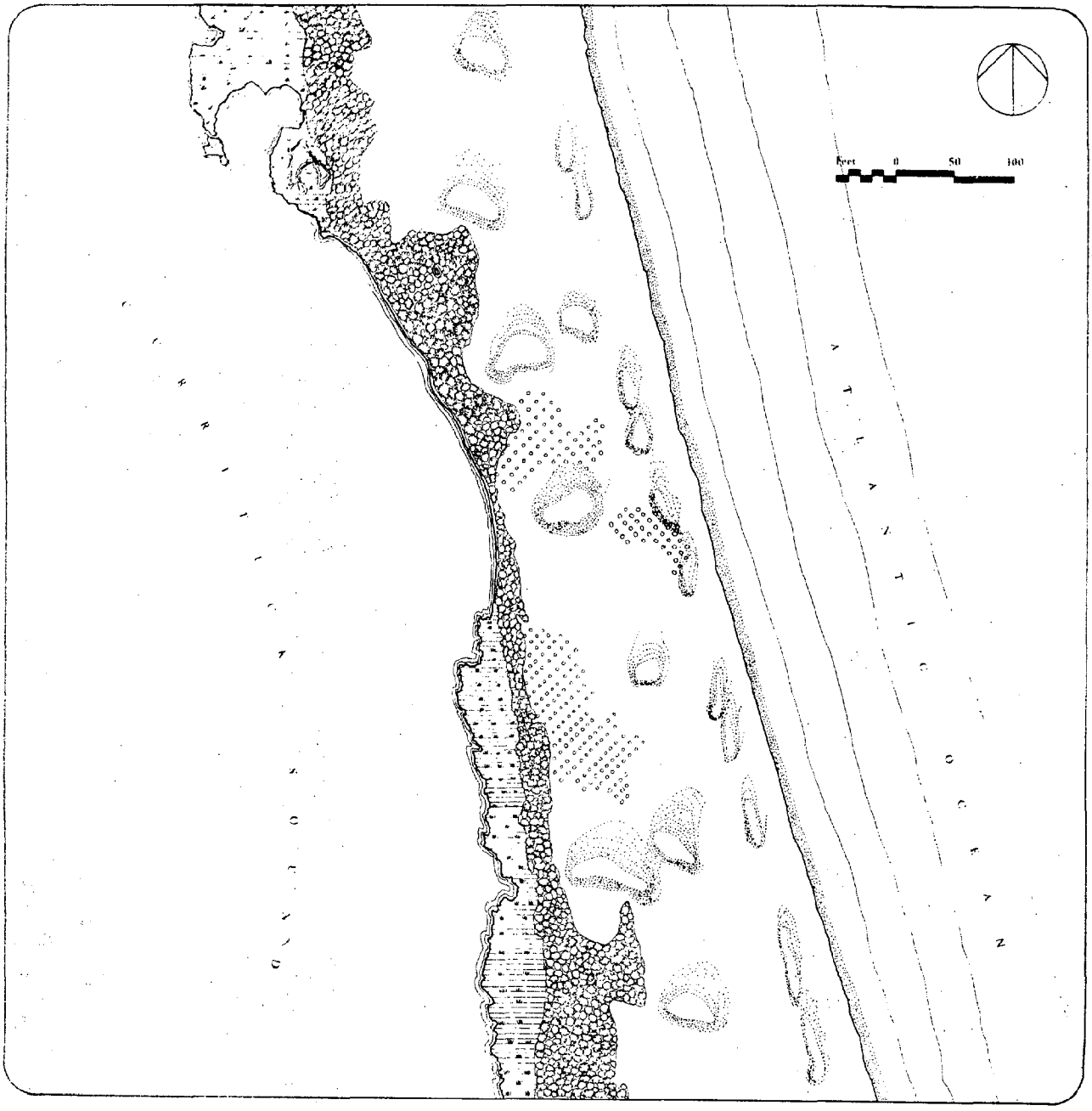


THE MID ATLANTIC REGION -- BASE MAP

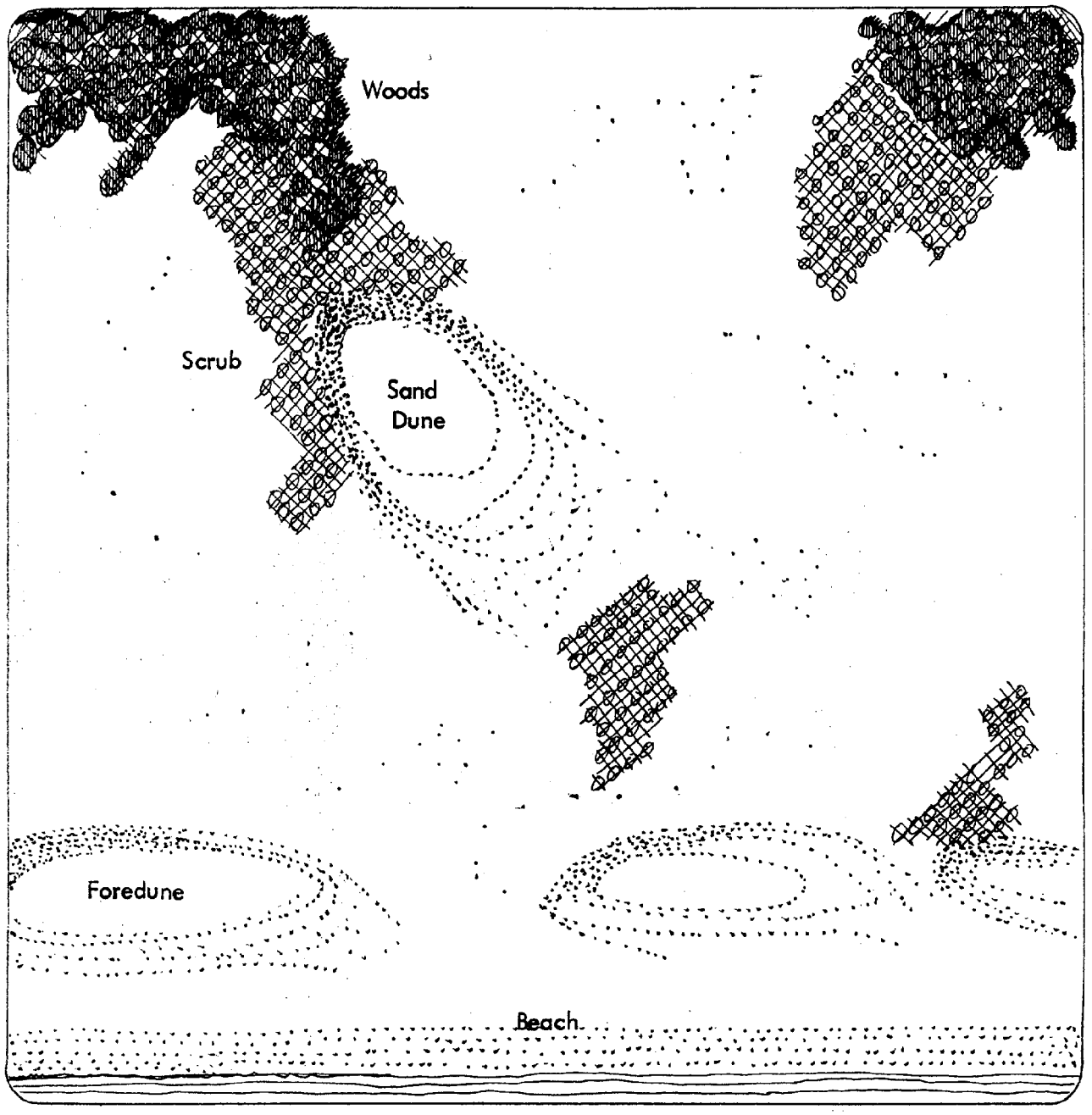
THE TIDEWATER REGION -- BASE MAP



CURRITUCK COUNTY -- BASE MAP



OUTER BANKS -- BASE MAP



PROTOTYPICAL SITE BASE MAP

Prepared by Envirotek, Inc., 1906 1/2 Hillsborough St., Raleigh, N.C. 27607

Project Coordinator -- Benjamin B. Taylor, Envirotek, Inc.
Planning Director -- Peter Batchelor, Urban Design Research Group, Inc.